

# **MEDIUMGEN**

## **EVALUATION OF GENERATED ARTICLES**

### **EVALUATION 1**

#### **PROMPT TITLE:**

“7 Powerful Psychology Lessons That Will Boost Your Digital Marketing Game”

#### **PROMPT TAGS:**

Marketing, Marketing Strategies, Growth Hacking, Psychology, Digital Marketing

#### **ACTUAL ARTICLE FROM THE DATASET:**

##### **1. Emotional Marketing**

There are two types of strategies that affect consumers buying habits:

Rational marketing that promotes the quality and usefulness of the product, emphasizes the benefits and appeals to the rational or logical consumer.

Emotional marketing that approaches consumer on a personal level and focuses on the tone, lighting, and mood to increase loyalty and boost conversions.

Its been proven that consumers base their purchase decisions around feelings and emotions rather than the rational information of products features and attributes. So, its worth remembering that customers will more likely be loyal to brands that evoke positive emotional response. Use this knowledge in your content marketing strategy and create content that:

Inspires, creates excitement and interest.

Reminds of special moments.

Sparks conversations, reactions, and engagements.

Apple is the perfect example of a company that uses emotions to connect with their consumers and increase brand loyalty. Apples marketing strategies tend to create a desire to become a part of a lifestyle movement, to be a part of something bigger. Recently, Apple joined Instagram and their #ShotoniPhone campaign fully encompasses those values. Instead of focusing on shiny product shots, Apple invites regular users around the world to share their iPhone photography with others.

##### **2. Social Proof**

According to social psychologist Robert Cialdini, social proof is one of the most important tactics for influencing and convincing customers. Social proof or social

influence is based on the fact that people love to follow the behavior of others. We tend to adopt the beliefs or mimic the actions of people we trust and admire. Implement this knowledge in your marketing strategy by using:

User-generated content, testimonials and reviews.

Influencer marketing.

Social plugins and sharing buttons.

For instance, clothing company Old Navy cooperated with social influencer Meghan Rienks on Instagram, Twitter and YouTube. In her videos, Meghan suggested style ideas to her followers using items from Old Navy, thus providing a powerful social proof.

### 3. Grounded Cognition

Grounded Cognition theory is based in the principle that people can experience a story that they read, watch or hear as if it was happening to them. It also states that people tend to forget dry facts and figures. If you want your customers to remember your message, you have to incorporate it into a story. Taking this into account you can boost your marketing by:

Speaking to your audience in a friendly way.

Telling the stories they can empathize with.

Sharing a personal story or experience.

High Brew Coffee provides a great example of a personal story that enables the audience to connect with the brand. The founder of the company, David Smith, together with his wife have shared their story of coming up with their business idea. They let the audience know exactly where it comes from a long trip through the Caribbean with their whole family.

### 4. Paradox Of Choice

Giving people the freedom of choice can positively influence your marketing efforts. However, too many choices make people nervous and can negatively impact conversion rates. According to psychologist Barry Schwarz, providing people with limited range of choices reduces customers anxiety and leads to better marketing results. Use this knowledge and:

Emphasize a few key points at a time.

Create clear CTAs.

Give your customers no more than two clear paths to follow.

The Paradox of Choice theory can be applied also if you wish to offer your customers a wider range of choices. For example, while Amazon offers millions of products, they still manage to avoid choice overload. Its done by highlight few different categories of products, each with up to 7 product options.

## 5. Information-Gap Theory

George Loewenstein proposed that people experience a strong emotional response when they notice a gap between what they know and what they want to know. This means that you have to create a feeling of curiosity within your audience and give them information that fulfills their need for knowledge. An effective way to incorporate it in your content marketing is by creating powerful headlines. There are plenty of free online tools that can help, such as:

Take an example from the digital marketing expert Neil Patel who is a master of strong headlines that create curiosity and generate clicks:

## 6. The Commitment and Consistency Theory

This theory states that if you make a small commitment to something, you are more likely to say yes to a bigger commitment in the future. This means that if you get your customers to make a small commitment towards your brand, like signing up for a newsletter, they are more likely to make a larger commitment e.g. in the form of a purchase or membership. To improve your marketing strategy, start with small commitments like:

Ask for customers contact details.

Invite them to subscribe to a newsletter.

Ask prospects to share your content on social media.

Offer them to sign up for an e-book or webinar.

Search Engine Journal, for instance, takes advantage of this theory and offers a free webinar for their website visitors. Although its simply asking for a name and an email address, its already a small commitment the user makes towards the brand.

## 7. Loss Aversion Theory

Loss aversion theory refers to the tendency of people to avoid losses rather than acquire gains. The negative feelings associated with loss are even twice as powerful as good feelings of gain. You can effectively use this theory in your advantage if you analyze your audience, learn their fears and create content that emphasizes benefits of your brand that eases those fears. There are many analytical tools that can help you know your audience better, for example:

ModCloth used this theory in their email reminders. After a few days after not making a purchase, customers receive a reminder that inventory is running low and the item they looked at might soon not be available anymore.

## Wrapping It Up

Using psychological theories is a great way to improve the success of your marketing messages without any additional technologies or big budgets. These

theories can help you better understand your customers, consider how your customers think and create a content that cuts through the information overload were all bombarded with.

## **GENERATED ARTICLE - GPT-2 Baseline model**

You may be wondering why I'm making this list. Because, well, if you are a big brand or marketing organization that relies heavily on social media for their advertising and branding purposes, then your website might not have much of an impact at all in terms of the content it generates. No matter what you do with your site, there is always going to be people who will want to read about some of the great things that went into creating your original piece. But while they can make money from my post as long as you don't promote them by using every single word spoken (or anything less than) throughout the article, because we're talking about blogging here, these aren't really important words! So let's start out by looking at how many different ways those five specific phrases could affect your business online. You'll notice pretty quickly after starting this analysis that any one phrase alone makes up 20%+ of the total mentions received in each paragraph; therefore no amount of repetition over 1000 would ever take away from having more positive comments/comments regarding your blog compared to just writing 1,000 posts back. This means when doing something like buying another beer – which has already been done countless times before—you need only look at 5 unique statements made during the same sentence without even considering other relevant details such as context. Of course once you've reached 100% coverage across multiple topics within a span of 10 sentences, everything else comes down to personal preference based on size, relevance, style and so on. However, despite being used sparingly, "How Much Does It Cost?" actually goes way beyond simply asking questions, but rather creates a very dynamic process where individual bloggers get to use 3-5 lines of code per page instead of 6. As far as I know, most blogs spend around \$100-\$150 per comment & follow lead time between articles - meaning writers should stick to three paragraphs of code immediately after posting 'how much does it cost?'

In order to avoid getting lost again trying to figure out what exactly was wrong with your topic, though, consider several options... A couple simple ones include:

1. Do yourself a favor and share your story first – Most likely sharing stories through Facebook groups won't work since Facebook doesn't are designed to allow someone to easily give themselves access to ideas later on. They seem to mean nothing unless shared repeatedly via Twitter, Reddit, etc. While probably impossible to achieve without knowing everyone involved individually, often speaking directly to others suggests success.. Just go ahead and say hi and talk about your experience right now. Sharing leads never works either! 2. Use Google Plus links – Many popular news sources rely on paid traffic boosting campaigns due to linking frequently. Even YouTube uses affiliate programs like MozRank to generate revenue from its viewers, especially given the massive number of clicks generated worldwide. Donate 30 cents off any purchase toward paying membership fees or buy new products free today! 4. Include information about possible problems related to your project HERE OR THE LINK BELOW FROM THIS POST AND YOU WILL CREATE YOUR OWN BIKE TOOLS IN SITE CUTTING ALL OTHER FEATURES OF YOUR DEVELOPMENT THAT ARE NOT USED BY GOOGLE NEWS CONTAINERS WITH NO MORE PROMOTING THAN WHAT HAS BEEN TAKEN UP THERE. Also included are detailed suggestions upon how to fix bugs / improve product functionality IF THEY COME OUT ONCE... In addition, remember that although users love seeing results posted elsewhere on their websites, generally none of us believe our findings accurately reflect real user behavior. If you decide that your research isn't helping enough, try reading our survey below which shows interesting trends amongst readers' opinions concerning your own projects including following @hq\_fauxblogger

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score: 0

Reason: The generated article fails to address the topic of psychology lessons in digital marketing. It diverges into a rambling narrative about social media, blogging, and various unrelated topics, showing a lack of coherence and relevance to the specified subject.

### **Style and Tone Consistency (3 Points)**

Score: 0

Reason: The style and tone are not consistent with a structured and informative article on marketing and psychology. The content is disjointed and lacks the professional and focused tone expected for an article on digital marketing strategies.

### **Engagement and Readability (2 Points)**

Score: 0

Reason: The article is not engaging and is challenging to read due to its lack of structure and clarity. It does not provide meaningful or relevant information for readers interested in digital marketing and psychology.

### **Originality and Creativity (2 Points)**

Score: 0.5

Reason: While the article attempts to be original, it does so in a manner that is not beneficial or relevant to the intended topic. The creativity does not contribute positively to the understanding of digital marketing strategies or psychology.

### **Technical Accuracy and Depth (1 Point)**

Score: 0

Reason: The article does not provide accurate or in-depth information on psychology lessons applicable to digital marketing. It lacks technical content and insight into the specific area of marketing strategies.

**Total Score: 0.5/10**

## **GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

Digital Marketing is a lot like building your life. It takes lots of time and effort, but it can be an exhilarating experience.

We all have our personal stories of how we lost everything to the internet. We lose our jobs and friends, we lose savings, we lose family, we lose relationships. And most importantly — we lose our minds.

But what if we change our ways of thinking? What if we take control over our digital marketing strategies?

My husband, who has worked in advertising for 25 years, told me he took this philosophy seriously when he started his career as an adult. He was inspired by the stories that made us laugh. And he said that while he didn't think of himself as a psychologist, he wanted to build a better business using his own insights.

Here are some of the key lessons I learned from my journey:

### 1. Take control of your brain.

I recently published a book about how to create great online content. The goal? To become more efficient in the process. In the book you learn how to use your brain as a tool to get things done. How do you communicate with your audience and motivate them to give you feedback?

### 2. Create tools that help you reach your goals.

Every day there are new challenges and opportunities to improve your brand. When you put something together, it becomes easier to share it with your team or group of customers. Think of the following tips:

- Get ready to make sure you are communicating well with your audience.
- Try to understand why your message resonates with your fans and followers. (Some people might not know exactly what they're talking about.)

### 3. Decide what you want your product/service to offer.

There are three types of products that are available on the market. There are products that will allow you to monetize your content faster and lower costs. For example, you can sell Facebook ads without having to spend money on ad space. This type of content is especially relevant for mobile users.

#### 4. Build a strategy for customer service.

Customer service is the best way to connect with your customers. They have to feel empowered to stay connected. You don't need to invest heavily in their lives. Instead, you should focus on getting their attention. Be confident in your ability to serve your clients so that they respond quickly and easily.

#### 5. Find out where your competitors live.

If you want to grow your website, you must find your niche. Start by identifying and targeting local markets. Then go beyond the narrow geographic areas you believe your competitor needs to locate. If you are successful, then you could target emerging markets such which represent larger segments of the population.

#### 6 "Use your strengths and weaknesses.

Your skillset consists mostly of working hard at mastering different aspects of the web. One thing that may prove useful is reading books. Reading is one of the few activities that does not require physical activity. But try to develop your visual acuity through reading short articles or video lectures. Visual acuity is critical for good SEO.

#### 7 Use your unique approach to delivering information.

Using your existing tactics is also important. A company that doesn't provide quality media services would probably end up losing sales because they rely on gimmicks and false claims. Similarly, companies that deliver high volume content often fail to meet the demand for its content. Don't let these issues dissuade you from doing better work.

#### 8 \*\*Always set deadlines!\*\*

You can always choose the right items to release within a month. Some websites simply cannot afford to delay delivery until after receiving payment. Others strive for long periods of time before releasing any kind of item. Remember that each step involves taking care of another person's risk. Do not wait until you have



received payments for yourself or others. Focus on learning what steps were taken wisely.

9. Use your social capital wisely.

Social Capital is a valuable asset when you want to attract positive impressions. People appreciate being valued and gaining shares on social media platforms. However...it's imperative to manage your social capital accordingly. Even though your site is small, you can leverage that potential into increased revenue.

10. Use social media responsibly. Not everyone uses social media extensively. While some sites actually support certain accounts, other sites just won't cover it. Also, follow @facebook or @twitter for daily updates. By creating strong connections between yourself and your readers, you can increase your chances of generating clicks.

11 ...Stay ahead of your competition."

Don't start slow. Asking people to buy you a ticket is risky. Rather than focusing on winning eyeballs, consider asking them to purchase you tickets. Or

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance(2 points)**

Score: 1

Reason: The generated article discusses digital marketing, but it lacks a clear focus on the integration of psychology, which is key to the title and tags.

### **Style and Tone Consistency (3 Points)**

Score: 1

Reason: The style is somewhat informal and lacks the structured, analytical approach typical of articles on digital marketing and psychology.

### **Engagement and Readability (2 Points)**

Score: 1

Reason: While somewhat readable, the article lacks a clear structure and engaging narrative, making it less captivating.

### **Originality and Creativity (2 Points)**

Score: 1

Reason: The article attempts to address digital marketing but lacks the specific original insights or detailed approach found in the actual article.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.5

Reason: The technical discussion is present but is generic and not deeply connected to the specific nuances of applying psychology to digital marketing.

**Total Score: 4.5/10**

## **GENERATED ARTICLE - LLama -2 Baseline model**

### **7 Powerful Psychology Lessons That Will Boost Your Digital Marketing Game**

In today's competitive digital marketing landscape, it's no secret that staying ahead of the curve requires a deep understanding of human psychology. By leveraging the latest insights from psychology, you can create marketing campaigns that resonate with your audience, drive engagement, and ultimately, boost your bottom line. Here are 7 powerful psychology lessons that can help take your digital marketing game to the next level:

#### **1. The Power of Social Proof**

Have you ever noticed how people are more likely to try a new product or service after seeing positive reviews from friends or influencers? This is known as social proof, and it's a powerful psychological phenomenon that can help drive conversions in your digital marketing campaigns. By showcasing customer testimonials, reviews, or endorsements, you can create a sense of social proof that can help build trust and credibility with your audience.

#### **2. The Importance of Scarcity**

Humans have a natural aversion to loss, and this can be leveraged in your digital marketing campaigns to create a sense of scarcity. By highlighting limited-time offers, exclusive deals, or limited availability, you can create a sense of urgency that can drive conversions and increase engagement.

### 3. The Power of Personalization

Personalization is a powerful psychological principle that can help you create marketing campaigns that resonate with your audience. By tailoring your messaging, offers, or content to the individual needs and preferences of your audience, you can create a sense of relevance and connection that can drive engagement and conversions.

### 4. The Role of Emotions in Marketing

Emotions play a significant role in how people make purchasing decisions, and digital marketers can leverage this by creating marketing campaigns that elicit the right emotions. By using emotional triggers such as humor, nostalgia, or empathy, you can create marketing campaigns that resonate with your audience and drive engagement.

### 5. The Power of Storytelling

Storytelling is a powerful psychological principle that can help you create marketing campaigns that resonate with your audience. By crafting compelling narratives that evoke emotions and create a sense of connection, you can create marketing campaigns that drive engagement and conversions.

### 6. The Importance of Visuals

Visuals have a powerful impact on how people process and remember information, and this can be leveraged in your digital marketing campaigns. By using high-quality visuals, videos, or graphics, you can create a sense of visual appeal that can drive engagement and conversions.

### 7. The Power of Repetition

Repetition is a powerful psychological principle that can help you create marketing campaigns that drive engagement and conversions. By repeating key messages, offers, or branding elements, you can create a sense of familiarity and recognition that can help build trust and credibility with your audience.

In conclusion, by leveraging these powerful psychology lessons in your digital marketing campaigns, you can create marketing campaigns that resonate with your audience, drive engagement, and ultimately, boost your bottom line. By understanding the psychology of your audience, you can create marketing campaigns that are more effective, more engaging, and more likely to drive conversions.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 1.5

Reason: The generated article stays on topic and is relevant to the title and tags, discussing various psychological principles and how they can be applied in digital marketing. However, it lacks the detailed examples and specific applications present in the actual article.

### **Style and Tone Consistency (3 Points)**

Score = 2

Reason: The style of the generated article is engaging and informative, which is suitable for a marketing-focused Medium article. However, it does not quite capture the depth and personalized narrative style that the actual article provides.

### **Engagement and Readability (2 Points)**

Score: 1.5

Reason: The article is well-structured and easy to read, but it lacks the more engaging and detailed explanations and examples that make Medium articles particularly compelling.

### **Originality and Creativity (2 Points)**

Score: 1.5

Reason: The article introduces a range of psychological principles in a creative way, but it does not provide the unique insights or innovative approaches to digital marketing that are evident in the actual article.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.8

Reason: The article correctly discusses various psychological principles relevant to marketing, but it lacks the depth and detailed application to digital marketing strategies present in the actual article.

**Total Score: 7.3/10**

## **GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

Digital marketing is not just about creating catchy ads or posts; it's about understanding the psychology of your customers to create campaigns that resonate with them. Here are 7 powerful psychology lessons that will boost your digital marketing game:

1. Scarcity Tactic: People want what they can't have. By using scarcity tactics in your marketing campaigns, you can make your products or services more desirable. For example, if there's only one left in stock, people will feel like they need to buy it quickly before it's gone.
2. Social Proof: People are more likely to trust recommendations from others than they are to trust your own claims. Use customer reviews, testimonials, and case studies to showcase how effective your product or service has been for others. This tactic works especially well when paired with social media influencers.
3. Authority Principle: People tend to trust experts and authority figures more than non-experts. Show off your expertise by adding credentials such as certifications, awards, or articles to your marketing materials. You could also use third-party endorsements to build credibility.
4. Foot-in-the-Door Technique: Asking someone for something small at first may be more effective than asking for something big right away. The foot-in-the-door technique involves starting with a low ask and gradually increasing the request over time.
5. Loss Aversion Effect: People tend to fear loss more than they desire gains. Use this principle to create urgency in your marketing campaigns by highlighting the potential losses associated with not taking action. For instance, "If you don't sign up now, you could miss out on this limited-time offer!"
6. Consistency Principle: When people commit to something, they tend to follow through because of their consistency principle. To maximize engagement, encourage customers to make small commitments early on and then slowly increase the size of those commitments.
7. Social Identity Theory: People are motivated to take action by their desire to maintain positive relationships with others. Use this theory by appealing to customers' sense of identity and belonging within a group. For instance, "Join our community today and connect with other successful entrepreneurs who understand the value of [insert product/service]."

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance(2 points)**

Score: 1.8

Reason: The article stays on topic and maintains coherence with the given title and tags. It successfully introduces psychological concepts in digital marketing, although it could include more varied examples.

### **Style and Tone Consistency (3 Points)**

Score: 2.3

Reason: The style is clear and informative, aligning somewhat with Medium's approach. While lacking in personal anecdotes, it maintains a professional and accessible tone.

### **Engagement and Readability (2 Points)**

Score: 1.8

Reason: The list-based structure and clear language contribute to the article's readability. It's structured in a way that is easy to follow, though it could benefit from more engaging storytelling techniques.

### **Originality and Creativity (2 Points)**

Score: 1.8

Reason: The article presents standard marketing concepts in a structured and original format. It displays a level of creativity in how it approaches the topic, even if it doesn't delve deeply into unique insights.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.8

Reason: The article correctly introduces basic psychological principles in marketing, showing a good grasp of the topic. While it's not deeply technical, it provides an accurate overview.

**Total Score: 8.5/10**

## EVALUATION 2

### PROMPT TITLE

“Apple M1 foreshadows Rise of RISC-V”

### PROMPT TAGS

Arm, Apple, Risc V, Trends, Apple M1 Chip

### ACTUAL ARTICLE FROM THE DATASET

Likewise with these interrupts we can send complex machine learning tasks to the M1 Neural Engine to say identify a face on the WebCam. Simultaneously the rest of the computer is responsive because the Neural Engine is chewing through the image data in parallel to everything else the CPU is doing.

RISC-V based board from SiFive capable of running Linux

The Rise of RISC-V

Back in 2010 at UC Berkley the Parallel Computing Laboratory saw the development towards heavier use of coprocessors. They saw how the end of Moores Law meant that you could no longer easily squeeze more performance out of general purpose CPU cores. You needed specialized hardware: Coprocessors.

Let us reflect momentarily on why that is. We know that the clock frequency cannot easily be increased. We are stuck on close to 35 GHz. Go higher and Watt consumption and heat generation goes through the roof.

However we are able to add a lot more transistors. We simply cannot make the transistors work faster. Thus we need to do more work in parallel. One way to do that is by adding lots of general purpose cores. We could add lots of decoders and do Out-of-Order Execution (OoOE) as I have discussed before: Why Is Apples M1 Chip So Fast?

Transistor Budget: CPU Cores or Coprocessors?

You can keep playing that game and eventually you have 128 general cores like the Ampere Altra Max ARM processor. But is that really the best use of our silicon? For servers in the cloud that is great. One can probably keep all those 128 cores busy with various client requests. However a desktop system may not be able to effectively use more than 8-cores on common desktop workloads. Thus if you go to say 32 cores, you are wasting silicon on lots of cores which will sit idle most of the time.

Instead of spending all that silicon on more CPU cores, perhaps we can add more coprocessors instead?

Think about it this way: You got a transistor budget. In the early days, maybe you had a budget of 20 000 transistors and you figured you could make a CPU with 15 000 transistors. That is close to reality in the early 80s. Now this CPU could do maybe 100 different tasks. Say making a specialized coprocessor to one of these tasks cost you 1000 transistors. If you made a coprocessor for every task you would get to 100 000 transistors. That would blow your budget.

### Transistor Abundance Change Strategy

Thus in early designs one needed to focus on general purpose computing. But today, we can stuff chips with so many transistors, we hardly know what to do with them.

Thus designing coprocessors has become a big thing. A lot of research goes into making all sorts of new coprocessors. However these tend to contain pretty dumb accelerators which needed to be babied. Unlike a CPU they cannot read instructions which tells them all the steps to do. They don't generally know how to access memory and organize anything.

Thus the common solution to this is to have a simple CPU as a sort of controller. So the whole coprocessor is some specialized accelerator circuit controlled by a simple CPU, which configures the accelerator to do its job. Usually this is highly specialized. For instance, something like a Neural Engine or Tensor Processing Unit deal with very large registers that can hold matrices (rows and columns of numbers).



## RISC-V Was Tailored Made to Control Accelerators

This is exactly what RISC-V got designed for. It has a bare minimum instruction-set of about 4050 instructions which lets it do all the typical CPU stuff. It may sound like a lot, but keep in mind that an x86 CPU has over 1500 instructions.

Instead of having a large fixed instruction-set, RISC-V is designed around the idea of extensions. Every coprocessor will be different. It will thus contain a RISC-V processor to manage things which implements the core instruction-set as well as an extension instruction-set tailor made for what that co-processor needs to do.

Okay, now maybe you start to see the contours of what I am getting at. Apples M1 is really going to push the industry as whole towards this coprocessor dominated future. And to make these coprocessors, RISC-V will be an important part of the puzzle.

But why? Cant everybody making a coprocessor just invent their own instruction-set? After all that is what I think Apple has done. Or possibly they use ARM. I have no idea. If somebody knows, please drop me a line.

### What is the Benefit of Sticking with RISC-V for Coprocessors?

Making chips have become a complicated and costly affair. Building up tools to verify your chip. Run tests programs, diagnosis and a host of other things requires a lot of effort.

This is part of the value of going with ARM today. They have a large ecosystem of tools to help verify your design and test it.

Going for custom proprietary instruction-sets is thus not a good idea. However with RISC-V there is a standard which multiple companies can make tools for. Suddenly there is an eco-system and multiple companies can share the burden.

But why not just use ARM which is already there? You see ARM is made as a general purpose CPU. It has a large fixed instruction-set. After pressure from

customers and RISC-V competition ARM has relented and in 2019 opened its instruction-set for extensions.

Still the problem is that it wasn't made for this from the onset. The whole ARM toolchain is going to assume you got the whole large ARM instruction set implemented. That is fine for the main CPU of a Mac or an iPhone.

But for a coprocessor you don't want or need this large instruction-set. You want an eco-system of tools that have been built around the idea of a minimal fixed base instruction-set with extensions.

### Nvidia using RISC-V Based Controllers

Why is that such a benefit? Nvidia's use of RISC-V offers some insight. On their big GPUs they need some kind of general purpose CPU to be used as a controller. However the amount of silicon they can set aside for this, and the amount of heat it is allowed to produce is minimal. Keep in mind that lots of things are competing for space.

The small and simple instruction-set of RISC-V makes it possible to implement RISC-V cores in much less silicon than ARM.

Because RISC-V has such a small and simple instruction-set it beats all the competition, including ARM. Nvidia found they could make smaller chips by going for RISC-V than for anybody else. They also reduced watt usage to a minimum.

Thus with the extension mechanism you can limit yourself to adding only the instructions crucial for the job you need done. A controller for a GPU likely needs other extensions than a controller on an encryption coprocessor e.g.

### RISC-V Machine Learning Accelerator (ET-SOC-1)

Esperanto Technologies is another company that found a value in RISC-V. They are making an SoC, called ET-SOC-1, which is slightly larger than the M1 SoC. It has 23.8 billion transistors compared to the 16 billion on the M1.

The Esperanto ET-SoC-1 die plot. Image: Art Swift.

Instead of four general purpose Firestorm cores, it has four RISC-V cores called ET-Maxion. These are suited for doing general purpose stuff like running a Linux operating system. But in addition to this it has over 1000 specialized coprocessors called ET-Minion. These are RISC-V based coprocessors which implement the RISC-V vector extension. What is the significance of that? These instructions are particularly well suited for processing large vectors and matrices which modern machine learning is all about.

You may be looking at the number of cores in disbelief. How can the ET-SOC-1 have so many more cores than the M1? It is because a Firestorm core is meant to deal with typical desktop workloads which cannot easily be parallelized. Hence lots of tricks have to be pulled to attempt to run code in parallel which is not trivial to parallelize. That eats up a lot of silicon. ET-Minion cores in contrast deal with problems which are trivial to parallelize, and these cores can thus be really simple, cutting down on the amount of silicon needed.

The key takeaway from ET-SOC-1 is that producers of highly specialized coprocessors are seeing a value in building coprocessors based on RISC-V. Both ET-Maxion and ET-Minion cores will be licensable from Esperanto Technologies. That means in theory Apple (or anybody else) could license ET-Minion cores and put a ton of them on their M1, to get superior machine learning performance.

## ARM Will Be The New x86

Ironically we may see a future where Macs and PCs are powered by ARM processors. But where all the custom hardware around them, all their coprocessors will be dominated by RISC-V. As coprocessors get more popular more silicon in your System-on-a-Chip (SoC) may be running RISC-V than ARM.

Read more: [RISC-V: Did Apple Make the Wrong Choice?](#)

When I wrote the story above, I had not actually fully grasped what RISC-V was all about. I thought the future would be about ARM or RISC-V. Instead it will likely be ARM and RISC-V.

## ARM Commanding an Army of RISC-V Coprocessors

General purpose ARM processors will be at the center with an army of RISC-V powered coprocessors accelerating every possible task from graphics, encryption, video encoding, machine learning, signal processing to processing network packages.

Prof. David Patterson and his team at UC Berkeley saw this future coming and that is why RISC-V is so well tailored to meet this new world.

We are seeing such a massive uptake and buzz around RISC-V in all sorts of specialized hardware and micro-controllers that I think a lot of the areas dominated by ARM today will go RISC-V.

Raspberry Pi 4 Microcontroller, currently using an ARM processor.

Imagine something like Raspberry Pi. Now it runs ARM. But future RISC-V variants could offer a host of variants tailored for different needs. There could be machine learning microcontrollers. Another can be image processing oriented. A third could be for encryption. Basically you could pick your own a little micro-controller with its own little flavor. You may be able to run Linux on it and do all the same tasks, except the performance profile will be different.

RISC-V microcontrollers with special machine learning instructions will train neural networks faster than the RISC-V microcontroller with instructions for video encoding.

Nvidia has already ventured down that path with their Jetson Nano, shown below. It is a Raspberry Pi sized microcontroller with specialized hardware for machine learning, so you can do object detection, speech recognition and other machine learning tasks.

NVIDIA Jetson Nano Developer Kit.

RISC-V as Main CPU?

Many ask: Why not replace ARM entirely with RISC-V? While others claim that this would never work because RISC-V has a puny and simple instruction-set which cannot deliver the kind of high performance that ARM and x86 offers.

Yes, you could use RISC-V as the main processor. No, performance is not stopping us from doing it. Just like with ARM, we just need somebody to make a high performance RISC-V chip. In fact it may already have been done: New RISC-V CPU claims recordbreaking performance per watt.

It has been a common misconception that complex instructions give higher performance. RISC workstations disproved that back in the 90s as they destroyed x86 computers in performance benchmarks.

How did Intel beat the RISC workstations in the 90s: Is It Game Over for the x86 ISA and Intel?

In fact RISC-V has a lot of clever tricks up its sleeve to get high performance: The Genius of RISC-V Microprocessors.

In short, there is no reason why your main CPU couldn't be a RISC-V processor, but this is also a question of momentum. MacOS and Windows already runs on ARM. At least in the short term, it seems questionable that either Microsoft or Apple will spend the effort on doing yet another hardware transition.

Share Your Thoughts

Let me know what you think. There is a lot going on here which is hard to guess. We see e.g. now there are claims of RISC-V CPUs which really beats ARM on watt and performance. This also makes you wonder if there is indeed a chance that RISC-V becomes the central CPU of computers.

I must admit it has not been obvious to me why RISC-V would outperform ARM. By their own admission, RISC-V is a fairly conservative design. They don't use much instructions which have not already been used in some other older design.

However there seems to be a major gain from pairing everything down to a minimum. It makes it possible to make exceptionally small and simple

implementations or RISC-V CPUs. This again makes it possible to reduce Watt usage and increase clock frequency.

Hence the last word on RISC-V and ARM is not yet said.

### **GENERATED ARTICLE - GPT-2 Baseline model**

Apple's new iPhones are coming soon. In a very real sense, they will be the next iPhone to feature an AMOLED display — but it won't have much of an impact over the old ones. The latest model has been redesigned and refined slightly as well. It comes with two cameras (the one that takes images) along with 3G connectivity and Bluetooth 4.0 support. We've seen this kind of technology come into existence before, like Samsung's Galaxy S7 Edge, which did not even use AMOLID while producing its flagship phones for Sony. But if you're expecting these devices to provide what we expect from their predecessors, then just wait till September 6th or 7th when both models hit store shelves. And remember, all three of these smartphones aren't expected until early 2017. Until then, keep your eyes peeled for more information about how things play out at various retail locations throughout the country, including some hints on where there might be other interesting specs revealed ahead of time. Stay tuned!

### **EVALUATION METRICS SCORE - GPT-2 Baseline model**

#### **Content Coherence and Relevance(2 points)**

Score = 0

Reason: The generated article completely deviates from the topic, which is supposed to discuss the Apple M1 chip and its implications for RISC-V technology. Instead, it talks about upcoming iPhones and AMOLED displays, which are unrelated to the specified subject.

#### **Style and Tone Consistency (3 Points)**

Score = 0

Reason: The style and tone are inconsistent with an informative, technology-focused article. The content is more akin to a casual product announcement or speculation, lacking the technical depth and focus expected from an article on microprocessor technology and trends.

#### **Engagement and Readability (2 Points)**

Score: 0

Reason: Due to its lack of relevance to the specified topic, the article is not engaging for readers seeking information about the Apple M1 chip, ARM technology, or RISC-V. It also lacks clarity and coherence, further detracting from its readability.

### **Originality and Creativity (2 Points)**

Score: 0.5

Reason: While the article tries to present new information about Apple's products, it fails to align with the topic. The creativity does not add value to the intended discussion about microprocessor technology and trends.

### **Technical Accuracy and Depth (1 Point)**

Score: 0

Reason: The generated content lacks technical accuracy and depth regarding the Apple M1 chip and RISC-V technology. It does not provide any accurate or meaningful information on these subjects.

**Total Score: 0.5/10**

## **GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

This article covers the history and current state in RISC-V, as well as a number of important trends that have helped push the technology forward. The main focus is on how the development of the C++ language has changed over the past decade.

“Apple’s Foreshadows Rise Of RISC V

RISC-V is still under development and even though the C++ core version of the platform is released for Mac OS X 10.11 and later, there are many technical changes to consider during this period. There are also some significant technological issues with the operating system as well. For example; an iPhone 6 Plus will not be able to run on C++11 at all, which makes it more difficult than ever before (and possibly impossible to find).

However, I can understand why some people feel differently about the future of RISC architecture and its impact on iOS apps. It’s hard to imagine how the next

generation of mobile computing could benefit from the new capabilities available to developers who were previously locked into the design of the platform. That's what made Apple so successful with the C# compiler.

The first major change that Apple made was to support natively compiled Swift code using the original C++ programming language – namely, the use of C++17's dynamic primitives. In other words, the program runs within an abstract class rather like an object or interface. This meant that you could easily write your own functions inside the class without having to worry about the type checker — by simply passing the call stack pointer between calls to the function itself. The runtime behavior of C++ programs would then be much less impacted by this approach.

As time went on, Apple began developing their own Swift library called Swift Compiler, which enables the implementation of Objective-C compilers instead of just relying on standard APIs such as `std::basic_string`. While this might sound like a great idea to others, it turns out that it's actually quite complicated for most libraries to work correctly. And while Swift compilers do provide various features and functionality, they tend to suffer when compared against Java or C++ languages where the types themselves are very different. Because of this, Swift compilers need to handle the complexities of implementing complex static methods and interfaces directly through the source code, whereas Java compiles normally if the underlying C++ code is fully typed. Therefore, because of this, Objective-C compilers often fail to compile properly when trying to compare multiple projects across different platforms.

Additionally, due to the high complexity of the API layer, the difference between the two approaches tends to make the performance worse. With Swift compiling, the programmer needs only look at the source code to see whether any differences exist between them. If an application tries something similar in another project, the result is likely to be higher CPU usage in both projects. Since Swift compilers mostly rely upon pointers to arrays and structs, we cannot expect that these same problems would occur in C++ compilations. Instead, the comparison should take place between the objects and interfaces provided by the base classes via an object member function called `__func__`. When this occurs, the method invoked returns an array containing zero values corresponding to each attribute specified in the enum declaration and one value



representing the reference to the second element. Once again, this results in a slightly lower memory footprint, but overall performance improves dramatically.

While Swift compiles poorly against Java, C++ compiles pretty similarly to Java. However, thanks to the low overhead associated with Swift compilation, the compilation times get faster once the code reaches the target level of abstraction. By contrast, C++ compilations performed extremely efficiently against non-Java targets—that's because the references to the elements used by the declarations are always stored in their generic counterparts. So although the assembly process takes significantly longer for a given context to complete, the execution time depends heavily on the amount of memory allocated to the thread pool being utilized. Additionally unlike C++), C++ compilations usually require fewer threads per invocation, resulting in increased throughput and better efficiency.

In summary...

RISC is still relatively young today, and despite the huge improvements in the way the platform is designed, the foundation remains largely intact. At the end of the day however, it's imperative that developers continue to learn and maintain the right practices to utilize the latest technologies and frameworks around the world. These include:

Developing code quality standards for our products

Improving product security

Development of cross-platform applications

Building interoperability with Microsoft Azure

Keeping up with evolving software market trends

Reaching milestones

Conclusion/Analysis

There are plenty of reasons to believe that the C++ community is moving toward a larger ecosystem that focuses on making modern systems safer and easier to manage. A few examples:

A large subset of existing solutions

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance(2 points)**

Score = 1

Reason: The generated article addresses technology-related themes but lacks a direct focus on the specific implications of Apple M1 on RISC-V, as suggested by the tags.

### **Style and Tone Consistency (3 Points)**

Score = 1

Reason: The style of the generated article is somewhat scattered and lacks the cohesive and focused approach expected in an article discussing technological trends and specific hardware architectures.

### **Engagement and Readability (2 Points)**

Score: 1

Reason: While the article covers technology topics, it does so in a way that is less structured and less engaging than the actual article.

### **Originality and Creativity (2 Points)**

Score: 1

Reason: The generated article attempts to discuss technological trends but lacks the specific original insights or in-depth analysis found in the actual article.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.5

Reason: The article touches on relevant technology topics but lacks the depth and accuracy in discussing the specific implications of Apple M1 and RISC-V.

**Total Score: 4.5/10**

## **GENERATED ARTICLE - LLama -2 Baseline model**

The recent launch of Apple's M1 chip has sparked a heated debate in the tech industry, with many experts speculating about its potential impact on the future of computing. While some see the M1 as a game-changer for Apple's ecosystem, others believe it foreshadows the rise of RISC-V, an open-source instruction set architecture (ISA) that could challenge the dominance of Arm and Intel.

At its core, the M1 is a system-on-a-chip (SoC) designed by Apple to power its latest line of devices, including the iPhone 12 and iPad Air. It features a custom-designed CPU, GPU, and neural engine, all of which are optimized for efficiency and performance. However, the M1's true significance lies in its adoption of RISC-V, a relatively new ISA that has gained significant traction in recent years.

RISC-V is an open-source ISA that offers several advantages over traditional ISAs like Arm and Intel. For one, it is highly scalable, allowing for the creation of custom CPU cores that can be tailored to specific applications. Additionally, RISC-V is highly extensible, with a modular design that allows for the addition of new instructions and features as needed. This flexibility has led to the creation of a thriving ecosystem of RISC-V-based chips and software, with companies like Google, Amazon, and Microsoft all investing heavily in the technology.

The adoption of RISC-V by Apple's M1 chip has significant implications for the future of computing. While Arm and Intel have long dominated the market, RISC-V offers a new and innovative alternative that could challenge their dominance. As more companies adopt RISC-V, it is likely that the ISA will become a major player in the industry, potentially leading to a shift in the balance of power.

However, the rise of RISC-V is not without its challenges. The ISA is still relatively new, and there are concerns about its ability to deliver the performance and efficiency needed for high-end applications. Additionally, there are concerns about the lack of standardization and interoperability in the RISC-V ecosystem, which could make it difficult for companies to develop and integrate RISC-V-based chips into their products.

Despite these challenges, the adoption of RISC-V by Apple's M1 chip is a significant development that could mark the beginning of a new era in computing. As more companies adopt the ISA and the ecosystem grows, it is likely that RISC-V will become a major player in the industry, potentially leading to a shift in the balance of power and a more competitive market.

In conclusion, the launch of Apple's M1 chip has sparked a heated debate in the tech industry, with many experts speculating about its potential impact on the future of computing. While some see the M1 as a game-changer for Apple's ecosystem, others believe it foreshadows the rise of RISC-V, an open-source ISA that could challenge the dominance of Arm and Intel. As more companies adopt RISC-V, it is likely that the ISA will become a major player in the industry, potentially leading to a shift in the balance of power and a more competitive market.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 1.5

Reason: The generated article aligns with the title and tags, discussing the Apple M1 chip and its implications for the rise of RISC-V. However, it lacks the detailed technical analysis and specific examples that the actual article provides.

### **Style and Tone Consistency (3 Points)**

Score = 2

Reason: The style of the generated article is informative and aligns with the informative and analytical tone typical of articles on technology trends. It doesn't completely capture the depth and nuanced understanding of the subject matter shown in the actual article.

### **Engagement and Readability (2 Points)**

Score: 1.5

Reason: The article is well-structured and easy to read, but it lacks the engaging and detailed technical explanations that make the actual article more compelling.

### **Originality and Creativity (2 Points)**

Score: 1.5

Reason: The article presents a thoughtful discussion on the Apple M1 chip and RISC-V, but it does not offer the unique insights or innovative perspectives found in the actual article.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.8

Reason: The article is technically sound in its overview of the Apple M1 chip and the potential rise of RISC-V. However, it lacks the technical depth, specificity, and comprehensive analysis present in the actual article.

**Total Score: 7.3/10**

### **GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

The launch of the new Apple M1 chip has taken everyone by surprise. It is an impressive piece of engineering that outperforms all other mobile chips in the market. What makes this achievement even more significant is that it utilizes a new architecture that is designed to take on the big boys of the computing world.

Traditionally, mobile devices have used Arm processors to power their chipsets. These processors are very effective at low levels but struggle with complex tasks. The M1 chip was designed to address these limitations by using a different architecture called Risc V. This new technology has allowed the M1 chip to perform better than any other processor currently available.

The Risc V architecture is based on a single instruction set that can be executed by a single processor. In contrast, traditional Arm processors use multiple instructions sets that require multiple processors to execute them. This allows the M1 chip to perform much faster than other mobile chips because it only needs to deal with one instruction instead of multiple ones.

One of the key features of the Risc V architecture is its ability to handle complex tasks such as image recognition and machine learning algorithms. The M1 chip has been specifically designed to work with these types of algorithms and can perform them much faster than other processors.

Another advantage of the M1 chip is its low power consumption. As we know, mobile devices are often used to run applications that require high processing power. However, these applications often consume too much battery life. With the M1 chip, you can get great performance without sacrificing battery life.

As we can see from the above, the M1 chip has revolutionized the way we think about mobile chips. It is an excellent example of how technology can

advance when we embrace new architectures. Although the M1 chip is still relatively new, it has already shown us some amazing things that we never thought possible. In conclusion, the M1 chip will certainly become a standard for future mobile device manufacturers.

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance(2 points)**

Score = 1.8

Reason: The article maintains coherence with the topic, focusing on the Apple M1 chip and its implications. It stays relevant to the given tags and title, offering a clear discussion on the M1 chip's architecture and its comparison with ARM processors.

### **Style and Tone Consistency (3 Points)**

Score = 2.4

Reason: The style is straightforward and informative, similar to many Medium articles. It lacks a bit in the personal touch or narrative style often found in Medium pieces but maintains a clear and professional tone.

### **Engagement and Readability (2 Points)**

Score: 1.9

Reason: The article is easy to read and well-structured, making it accessible to readers. It lacks some elements of engagement like anecdotes or a more conversational style but overall is well-written and understandable.

### **Originality and Creativity (2 Points)**

Score: 1.8

Reason: The article presents a unique perspective on the Apple M1 chip and RISC-V architecture. It's original in its approach, even if it doesn't delve into highly creative or unique insights.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.8

Reason: The article provides a basic overview of the M1 chip and RISC-V, but it lacks the technical depth and detailed accuracy expected in a more comprehensive Medium article on such a specialized subject.

**Total Score: 8.7/10**

## **EVALUATION 3**

### **PROMPT TITLE**

“The PTSD-like Affliction Thats Traumatizing Health Care Workers”

### **PROMPT TAGS**

PTSD, Mental Health, Morality, Trauma, Ethics

### **ACTUAL ARTICLE FROM THE DATASET**

The invisible wounds of moral injury run deep for those on the front lines

Photo: San Francisco Chronicle/Hearst Newspapers/Getty Images

Some experiences imprint themselves beyond where language can speak. These are the words of psychiatrist and trauma expert Bessel van der Kolk. This is also the experience of many health care workers ensnared in the Covid-19 pandemic.

I just cant cant find the words there simply are none, whispered a doctor friend working in a hospital in New York Citys viral epicenter. We were Zooming both of our backgrounds dark. Through the screens dim glow, I watched her head fall into her hands and rock back and forth. Her shoulders slumped forward, and she started to shake.

Marie, Ill call her, and I had worked together in Californias Bay Area when I was doing palliative care chaplaincy and clinical ethics work. She was never at a loss for words. In fact, to call her highly verbal would be an understatement. And yet what she has recently witnessed, been forced to do, and could not prevent on the Covid-19 front line has brought about some kind of internal preternatural silence. Its as if part of my soul had been shredded with a knife, she told me when she finally could speak; the part that holds me in relation to my Hippocratic oath and personal values.

Marie, like many health care workers, entered the field of medicine because, as she would say, she cares about doing good and not doing bad. From the day she started medical school, she had a clear vision of who she was and how she could serve humanity. But after death by a thousand cuts from a pandemic that has

made her betray her vow to do no harm, shes now questioning who she is, who other people are, and what life is all about generally speaking. Some might call this experience a loss of innocence a recognition that the world is more of a babel of bad than Marie originally believed. What I also know is that this suffering is a moral injury.

Moral injury is a transgression of conscience. It is what happens when a persons deeply held values, beliefs, or ways of being in the world are violated. That violation could result from things the person did themselves, things they experienced, things they were made to do against their will or better judgment, or things they couldnt stop from happening. And its more prevalent than many would think. Of the 2.7 million service people who served in Afghanistan and Iraq, reports show that roughly the same number who were diagnosed with post-traumatic stress disorder (11% to 20%) were also coping with moral injury.

But moral injury is not unique to veterans. Moral injury is a pall that has blanketed individuals, families, and communities throughout time and across cultures. It can be found on the battlefield; at the front line of disaster; behind closed doors of churches and temples; in hospitals, bars, brothels, prisons, refugee tents, abortion clinics, soup kitchens, unemployment lines; at borders and in detention centers; on school playgrounds and social media; and even in the unsuspecting house or office next door. This is because wherever human beings are, so too dwells moral injury.

Moral injury is a transgression of conscience. It is what happens when a persons deeply held values, beliefs, or ways of being in the world are violated.

We are, as a species, hardwired to embody goodness, love, compassion, empathy, and a sense of right and wrong. Moral expectations are at the heart of who we are as people and societies. But human beings are also imperfect and limited. We cant always meet our own moral expectations nor can others always meet them. Sometimes life throws us into situations where the stakes are high and no outcome is good, and we or others act, doing what we or they otherwise know to be bad, aware that harm will come in one way or another to ourselves or to another. Sometimes that is simply life.



Some have likened PTSD and moral injury. And while intrusive images of the past are similar in each experience, with moral injury, memories don't trigger fear. Instead, they beget shame, guilt, rage, disgust, emptiness, and despair. With PTSD, the primary concern is physical safety. With moral injury, it is existential safety or trust. Moral injury makes a person question themselves, others, life, or their God. It makes them question their or others ability to do right or be good. Moral injury deteriorates one's character, ideals, ambitions, and attachments. It leaves people feeling contaminated in their being or that something they once held dear has been sullied. Unworthy, beyond redemption, gone forever, and emotionally dead are how many people have described the experience. A soul divided against itself is how Rita Brock, an author and the director of the Shay Moral Injury Center, defines it.

How can I be a savior of life and a monster in scrubs at the same time? Marie asked, her eyes distant and dark. We're all killing ourselves to save everyone we can, and yet we have to play God and decide who lives and dies. Who am I or any one of us, for that matter to make such a call?

Anyone who has listened to the news in the last few months knows well the issue of limited personal protective equipment (PPE) and ventilators in this country: There simply weren't enough. While politicians and talking heads debated the veracity of need, people like Marie were wading through jam-packed ER wards as if they were minefields, donning soiled or homemade masks. For the first time in their careers, many health care workers had to determine not if a patient needed a ventilator but rather who would get the high-value, vital air.

How can you look anyone in the eye gasping patients, pleading family members, knowing that your decisions will send many to their graves or more like the make-shift morgue in the U-Haul van outside? I struggle to look at myself in the mirror, let alone at any of the people I'm trying to help.

Marie mentioned that the sound of a cough is beginning to be what fireworks were to her Vietnam veteran father a PTSD response. But the nausea in her belly the sickness that comes from disgust at the situation is the making of moral injury. Shortages of equipment, overloaded hospitals, overburdened staff, and insufficient testing made the U.S. Covid-19 response an ill-fated mission from the start. Having to be surrogate mothers, fathers, sons, and daughters for

dying patients holding up cellphones for family members to say their final goodbyes was a task beyond medical training. Not being able to hold or breastfeed an infant child or tuck a scared youngster into bed at night because their essential work took precedence over essential familial love was felt by many to be a dereliction of duty.

The invisible wounds that are injuring Covid-19 front line workers bear the markings of a system equally scarred. A betrayal of what is right, by a person who holds legitimate authority, in a high stakes situation, is how psychiatrist and author Jonathan Shay first defined moral injury when he coined the phrase in the 1990s.

In the months since Covid-19 first reared its ugly head in the U.S., we have witnessed repeated stall tactics by leaders in the upper echelons of the government despite dire warnings from around the globe. Weve heard the virus called a hoax and minimized in severity and threat. Weve seen safety guidelines for the general public developed by respected public health officials and then flouted by the very leaders who employ said officials. Weve heard the virus was contained when it wasnt. Weve discovered the organizations that ought to have been prepared for such a pandemic actually werent. Weve endured a lack of testing and faulty testing. Weve been exposed to inefficiencies and inequities in our health system. Weve witnessed hospital administrations put finances above safety.

We are, as a species, hardwired to embody goodness, love, compassion, empathy, and a sense of right and wrong.

While no one person is to blame for the injuries that many are now suffering and while much is finally being done to stem the Covid-19 tide and get our society back on track, the above betrayals can also be summed up as widespread asystemic thinking and disorganization.

Whatever the labyrinthine conditions and events that created the current morally injurious climate for Covid-19 health care workers, we, as a society, must do better to help them heal because, as research shows, once the acute phase of a situation like this subsides, it is the following period that is often the hardest for people to come to terms with. While the rest of society hastens to return to

normal life, shifting their attention from stories of the front line to the economy and getting kids reintegrated in school, there will be swaths of people like Marie feeling the weight of all their decisions, questioning how this all could have happened, overwhelmed by guilt, shame, anger, disgust, emptiness, and despair.

Brock pointed out in a recent BBC article that the fight against the coronavirus is similar to battlefield medicine: desperate and unrelenting encounters with patients, an environment of high personal risk, an unseen lethal enemy, extreme physical and mental fatigue, inadequate resources and unending accumulations of the dead.

I wouldn't pretend to know the demons that Dr. Lorna Breen, the medical director of the emergency department at New York-Presbyterian Allen Hospital in Manhattan, was wrestling with when she took her own life after fighting Covid-19 herself and fighting against it on behalf of her patients. But I do know and research with veterans shows that moral injury is associated with increased suicide risk.

Covid-19 health care workers are putting their lives on the line, and in some cases sacrificing their lives, so that others can live. We cannot allow the lives lost to be for naught nor the future of those who survived to be put at further risk or sacrificed because we, as a society, got distracted by our desire for normalcy and exhaustion with discomfort. Healing from moral injury requires a person to reconcile many difficult truths and to transform in difficult yet often unexpected ways. But it also requires communities and systems of shared values to support them. We all must do that now.

To the women and men who were courageous enough to serve on the Covid-19 front, we thank you and honor your experience. To those struggling to heal from the wounds of moral injury, either now or in the future, please know you're not alone.

If you or someone you know is suffering from moral injury, here is a wealth of resources. If you are in crisis and in need urgent of help, please contact the National Suicide Prevention Lifeline at (800) 273-8255.

## **GENERATED ARTICLE - GPT-2 Baseline model**

I'm a doctor, and the only one who's ever been in my office. I've seen patients with PTSD be put down by their coworkers or employers for hours at a time to get some help — sometimes as many days as they need. My colleagues are often called out on this kind of behavior (for instance, when someone goes missing after being diagnosed with PTSD), but it's not really about "being stressed" anymore. It's just that we're no longer so focused on getting people right back into work because we can't afford to spend our hard earned money trying to find them. In fact, there is an awful lot of research showing that working long shifts may actually make you more likely to commit suicide, leading to increased risk of serious illness. One study found that even if you worked 40 hours per week, your odds of dying from mental health issues were 2 times greater than those of non-workers compared to workers over 30. And yet these studies show that almost half of Americans have experienced significant stress during their lives due simply to something other than physical exhaustion. Here's what I'd like to ask you guys to do instead: Do you think workplace practices should treat yourself better? If so, why? Why would you want to become such a part of society where everything gets done under the radar? What impact does this change have on helping us heal? How might we improve the way we see others treated based solely on social media experiences? Tell me about your experience writing for Social Work magazine! Now go take advantage of all the benefits listed above along with any freebies available through Facebook, Twitter, YouTube, Google+, LinkedIn, Pinterest, Instagram, Vimeo, Blogger, Slack, Hacker News, and much more! Donate

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 0

Reason: The content of the generated article is not coherent or relevant to the specified title "The PTSD-like Affliction That's Traumatizing Health Care Workers." Instead, it discusses unrelated topics such as workplace practices, social media, and mental health in a general context, failing to address the specific affliction impacting health care workers as described in the title.

### **Style and Tone Consistency (3 Points)**

Score = 0

Reason: The style and tone are not consistent with what is expected in an informative and empathetic article about PTSD-like afflictions in health care workers. The generated content lacks the focused and serious tone required for a discussion on such a critical and sensitive topic.

### **Engagement and Readability (2 Points)**

Score: 0

Reason: The article is not engaging or readable for an audience interested in understanding the PTSD-like afflictions experienced by health care workers. It lacks structure and substance, making it unengaging and irrelevant to the intended audience.

### **Originality and Creativity (2 Points)**

Score: 0.5

Reason: While there may be some level of originality in discussing the broader topic of mental health and workplace stress, this originality does not align creatively or effectively with the specific subject matter of PTSD-like afflictions in health care workers.

### **Technical Accuracy and Depth (1 Point)**

Score: 0

Reason: The article does not demonstrate technical accuracy or depth concerning the PTSD-like afflictions experienced by health care workers, as indicated by the title. It fails to provide relevant or accurate information on the topic and does not delve into the complexities and specifics of the subject matter.

**Total Score: 0.5/10**

## **GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

Healthcare workers are often the victims of a devastating illness or injury and have difficulty coping with it. It's an anxiety disorder that has been dubbed the 'Treatment Panic' because of its debilitating effects on health care workers. As a result, many workers suffer from depression, anxiety, panic attacks, panic attacks, obsessive compulsive disorder, suicidal ideation, panic attacks, and other mental health problems. Despite all these symptoms being alleviated by

medication, they still face chronic stress and fatigue. These conditions include emotional, psychological, and physical pain.

A number known as the 'Treatment Panic' is characterized by a sense of dread, isolation, fear of rejection, and/or denial of their own abilities to cope well. In addition, individuals who experience the condition have high levels of anxiety, depression, and increased self-doubt. This can be particularly difficult for those experiencing the condition due to an inability to accept themselves as human beings in the workplace.

Research conducted by the National Center For Veterans Affairs (NVA), led at the University College London, showed that among veterans suffering from PTSD, there are significant increases in symptoms associated with the use of medications, even when taking them during recovery. According to a study published in the journal PLOS ONE, more than 8% of veterans described the use of antidepressants, such as Prozac, Psilocybin, Delta 7-ols and Tylenol, as reasons why they were unable to function properly during recovery. Additionally, some veterans reported feeling unwell after treatment; this included heavy alcohol consumption and withdrawal symptoms.

While there is no scientific evidence that antidepressant treatments work — which means patients may not thrive under treatment if they continue to exhibit signs of distress over time — it is important to note that the combination therapy used in the NVA study was actually effective in relieving PTSD symptoms. However, we must remember that psychiatric disorders are common within a broad group of people. Many medical professionals believe that mental illness is caused by one set part of the brain. An individual's personality, mood, emotions, feelings, perception of reality, or behavior patterns are affected by several factors including genetics, lifestyle, social environment, family history, education level...all of which contribute directly towards the severity of PTSD. Therefore, while treating someone with PTSD requires research into the underlying causes of the disease, it is imperative to understand how each specific factor contributes to the overall symptom pattern.

## Symptoms of PTSD

The majority of PTSD sufferers do not respond well to any kind of cognitive training. Most commonly, they fall into four categories:

- Affective Disorder
- Self-harm/Disorder
- Mental Illness/Depression

"Self dealing" refers to situations where a person feels alone, without understanding what makes them feel apart from others. Sometimes, this is the case with depression. With self-harm or depression, the individual becomes angry and frustrated. They become depressed because they don't know exactly what they need to fix. Anxiety, anger, or frustration come up again and again throughout the day. A therapist might suggest calming down your thoughts, focusing on activities like exercise or meditation. One reason mindfulness exercises can help relieve tension is that you can avoid becoming overwhelmed by negative emotions. Stress hormones play a role in suppressing emotion and increasing tolerance to stressful stimuli.

- Distress Disorder

Many trauma survivors struggle with having enough information about life to deal fully with their traumatic experiences. Often, they find themselves constantly trying new things to get better at, thinking that something just doesn't fit. Once they realize that they cannot achieve anything meaningful, they try different ways of doing things. Unfortunately, most of us think that if we could simply let go of the present moment, our lives would suddenly change forever. And yet, today, it seems that our past behaviors—from drinking too much soda to smoking—can now cause us great harm. So why should we want to focus on fixing our current situation? What does this mean for our future success in society?

### Distress Disorder Symptoms

Most of us will spend our days worrying about our futures. We worry about the consequences of our actions. We worry about whether or not we deserve to live next to another human being. Our worries involve everything from daily interactions with peers, friends, families, and coworkers to job demands and

personal decisions. But sometimes, our fears run deep and overwhelm us. Such issues may include weight gain, sleep deprivation, obesity, excessive daytime eating, lack of appetite, seizures, insomnia, anxiety, poor judgment, impaired concentration, impulsivity, irritability, hyperactivity, posttraumatic stress disorder, and hallucinations. Some sufferers report nightmares and delusions, so they ask themselves, 'What am I going to do?' Their answer is simple: If the problem arises, then seek help. You can reach out to a

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance(2 points)**

Score = 1

Reason: The actual article insightfully discusses the moral injury and trauma experienced by healthcare workers in the context of the COVID-19 pandemic, closely aligning with the title and tags. The generated article, while touching on mental health issues in healthcare workers, diverges into general discussions on PTSD and mental illnesses, lacking specific relevance to the unique experiences of healthcare workers in the pandemic.

### **Style and Tone Consistency (3 Points)**

Score = 1

Reason: The actual article maintains an empathetic, informed, and narrative-driven style, appropriate for a Medium article on this sensitive topic. The generated article, however, presents a more clinical and detached tone, lacking the narrative and empathetic quality of the actual article

### **Engagement and Readability (2 Points)**

Score: 1

Reason: The actual article is engaging and accessible, drawing the reader into the personal and emotional experiences of healthcare workers. The generated article, while informative, lacks the narrative engagement and readability, presenting information in a more fragmented and less compelling manner.

### **Originality and Creativity (2 Points)**

Score: 1

Reason: The actual article offers original insights into the experiences of healthcare workers, providing a unique perspective on their trauma. The



generated article, while original in content, fails to creatively or insightfully explore the specific topic of healthcare worker trauma in the pandemic context.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.5

Reason: The actual article accurately captures the psychological impact of the pandemic on healthcare workers, with depth and understanding. The generated article, although technically discussing mental health issues, lacks specific accuracy and depth regarding the unique mental health challenges faced by healthcare workers during the pandemic.

**Total Score: 4.5/10**

### **GENERATED ARTICLE - LLama -2 Baseline model**

Health care workers are not immune to the psychological effects of caring for patients in crisis. In fact, many are developing a PTSD-like affliction known as compassion fatigue. This condition is caused by the constant exposure to traumatic events, leading to emotional exhaustion, cynicism, and a loss of empathy.

As the pandemic continues to spread, health care workers are facing unprecedented levels of stress and trauma. They are working long hours, often without adequate support or resources, to care for patients who are suffering from a deadly and highly contagious disease. Many are also dealing with the emotional toll of losing patients, as well as the fear of contracting the virus themselves.

Compared to other industries, health care workers are at a higher risk of developing PTSD due to the nature of their work. A study published in the Journal of Nervous and Mental Disease found that 25% of health care workers reported symptoms of PTSD, compared to 10% of the general population.

The symptoms of compassion fatigue can be just as debilitating as those of PTSD. They include emotional numbing, irritability, difficulty sleeping, and a loss of interest in activities that were once enjoyed. Health care workers may also

experience physical symptoms such as headaches, stomach problems, and muscle tension.

The ethical implications of compassion fatigue are significant. Health care workers are expected to provide empathetic and compassionate care to their patients, but when they are struggling with their own mental health, it can be difficult to maintain these standards. This can lead to a breakdown in the patient-provider relationship and a loss of trust in the health care system.

To address the issue of compassion fatigue, health care organizations must prioritize the mental health and well-being of their workers. This can include providing access to mental health services, such as counseling and therapy, as well as implementing policies to reduce stress and burnout.

Ultimately, the responsibility for addressing compassion fatigue lies not only with health care organizations but also with society as a whole. We must recognize the value of health care workers and the critical role they play in our society. By prioritizing their mental health and well-being, we can ensure that they are able to continue providing the high-quality care that our communities deserve.

In conclusion, compassion fatigue is a real and debilitating condition that is affecting health care workers around the world. It is caused by the constant exposure to traumatic events and can lead to emotional exhaustion, cynicism, and a loss of empathy. To address this issue, health care organizations must prioritize the mental health and well-being of their workers, and society as a whole must recognize the value of these essential workers. By taking these steps, we can ensure that health care workers are able to continue providing the high-quality care that our communities deserve.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 1.5

Reason: The generated article stays on topic, discussing the mental health challenges faced by healthcare workers, similar to the actual article. It aligns with the title and tags, addressing the psychological impact of the COVID-19 pandemic on healthcare workers. However, it doesn't specifically delve into the concept of moral injury as deeply as the actual article does.

### **Style and Tone Consistency (3 Points)**

Score = 2

Reason: The style of the generated article is informative and empathetic, fitting for an article focused on mental health and trauma. It maintains an appropriate tone for discussing sensitive topics, but lacks the depth and narrative-driven style of the actual article.

### **Engagement and Readability (2 Points)**

Score: 1.5

Reason: The article is readable and structured, making it accessible to readers interested in mental health and healthcare issues. However, it lacks the engaging anecdotes and personal stories that enhance the readability and engagement of the actual article.

### **Originality and Creativity (2 Points)**

Score: 1.5

Reason: The article provides a general overview of the mental health issues faced by healthcare workers, showing some degree of originality. However, it doesn't provide the unique insights or detailed exploration of the concept of moral injury as found in the actual article

### **Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The technical content in the generated article regarding the mental health of healthcare workers is generally accurate, but it lacks the depth, detail, and focus on the specific concept of moral injury that the actual article provides.

**Total Score: 7.2/10**

## **GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

Health care workers are burning out from the trauma of their work. And that is nothing to do with what they see or even treat. It has to do with what they can't see.\n\nThe last decade has seen an increase in the incidence of mental health problems among healthcare workers. A recent study found that 60% of nurses reported feeling overwhelmed by their work, while 50% said they felt burnt out. These numbers are not surprising given the intense nature of their jobs. They

have to deal with life and death situations every day. But there is something more insidious going on here than just burnout. There is something that goes beyond mental fatigue and into the realm of moral exhaustion.

This kind of emotional exhaustion is not just limited to healthcare workers. It affects all of us who have been exposed to trauma. From soldiers returning from war to victims of domestic violence, everyone is affected. The problem is that we don't know how to talk about it. We don't know how to process it. And we certainly don't know how to heal from it.

The reason for this lack of understanding is that we have never really talked about trauma before. We have always been afraid to confront the issue head on. But now, as we face the reality of our own mortality, we must confront the reality of our own suffering. This means we need to take action.

First, we need to recognize the signs of trauma. We need to be able to identify when someone is experiencing symptoms of trauma. This includes things like flashbacks, nightmares, and anxiety attacks. We also need to be aware of the physical symptoms of trauma, such as chronic pain and fatigue.

Second, we need to understand the root cause of trauma. We need to understand why people experience trauma in the first place. This involves looking at the societal factors that contribute to trauma. For example, poverty, racism, and sexism are all common causes of trauma.

Third, we need to develop strategies for dealing with trauma. We need to learn how to cope with the symptoms of trauma. This can include therapy, medication, and self-care practices. We also need to learn how to support each other through the process of healing.

Finally, we need to take responsibility for our own healing. We cannot rely on others to fix our problems. We need to take control of our own lives and make decisions that will help us heal. This means setting boundaries, taking time for ourselves, and seeking help when we need it.

In conclusion, the PTSD-like affliction that plagues healthcare workers is a complex issue that requires a multifaceted approach. By recognizing the signs of trauma, understanding its root cause, developing strategies for coping with it, and taking responsibility for our own healing, we can begin to address this critical issue.

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance(2 points)**

Score = 1.7

Reason: The article maintains coherence with the topic of trauma and mental health in healthcare workers. It effectively addresses the issue, staying relevant to the given title and tags. The focus on moral exhaustion aligns with the theme of the actual article.

**Style and Tone Consistency (3 Points)**

Score = 2.2

Reason: The style is informative and addresses the topic seriously, which is suitable for the subject matter. However, it lacks the depth of personal narratives and emotional engagement found in the actual article, which are key elements in Medium's style.

**Engagement and Readability (2 Points)**

Score: 1.8

Reason: The article is structured in a way that is easy to read and understand. It uses clear language and a logical flow, but it could benefit from more engaging elements like personal stories or case studies to enhance reader engagement.

**Originality and Creativity (2 Points)**

Score: 1.7

Reason: The article presents the issue of trauma among healthcare workers in an original manner, offering a broad perspective. While it is creative in its approach, it lacks specific examples or unique insights that would make it more compelling.

**Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The article touches on important aspects of trauma and mental health but lacks the depth and detailed exploration of these issues, particularly in the context of healthcare workers during a pandemic, as seen in the actual article.

**Total Score: 8.1/10**

## **PROMPT TITLE**

“Inverting Dependencies: A Step Towards Hexagonal Architecture”

## **PROMPT TAGS**

Architecture, Dependency Inversion, Software Development, Programming, Startup

## **ACTUAL ARTICLE FROM THE DATASET**

How to take the first step towards hexagonal architecture from a traditional layered architecture

Photo by Glauco Zuccaccia on Unsplash

You must understand that when you marry a framework to your application, you will be stuck with that framework for the rest of the life cycle of that application. For better or for worse, in sickness and in health, for richer, for poorer, forsaking all others, you will be using that framework. This is not a commitment to be entered into lightly. Robert C. Martin, Clean Architecture

My younger self wouldve been surprised by this warning. Because the younger me considered knowing a framework equivalent to having a higher degree. Back then, I had just one goal, and that was finding a perfect framework and sticking with it as long as I was going to stay in this profession.

The idea of switching to a different framework to do the same thing was alien to me. But that attitude of mine didnt last very long. Because very soon I realized how temporary things are in this industry how every day were introduced to a new language or a new framework that could further reduce our work.

When I realized this, Id often want to migrate my code to new shiny frameworks. But I couldnt. Because the framework code was so deeply ingrained in the business logic that itd take a humongous amount of effort to do so.

The business rules should be the most independent and reusable code in the system. Robert C. Martin, Clean Architecture

The answer to this problem was always in front of me i.e., to keep domain logic decoupled but an approach wasn't. But recently, I had come across an architecture that provided an interesting way to solve this problem. It was called hexagonal architecture.

Illustration by Cth027 on Wikimedia Commons

The idea behind hexagonal architecture is to keep the domain or business logic at the center of your design. The domain shouldn't have any outward dependencies. At its center, we have entities, and surrounding it are use cases. Everything is enclosed within the hexagon. Access to it is provided via the input/output ports only. So how do we achieve this?

Before I answer that, I'd like to talk a little bit about layered architecture and some of its shortcomings. Then I'll show you how to transition from layered architecture to hexagonal architecture which will help us overcome those shortcomings and answer the question raised above.

### Layered architecture

As you can see in the above diagram, the service layer resides over the top of the repository layer. So clearly, our domain code which resides in the service layer has an outwards dependency on the repository layer. As a result of this, we can't start working on the service layer before we implement our repository layer.

Also because of this hierarchy, we usually start by modeling database schema database-driven design with the confidence that we've completely understood our domain, which, in fact, we never do unless we've implemented all of our business logic. And then we find ourselves spending hours working on our DB schema and ORM code again.

That's not it. Remember the rant over mixing framework code with business logic in the first paragraph? That's happening in the service layer because of ORM entities making their way into it. What's so bad about that? you might ask. Well, those entities bear an exact resemblance to the table in our database plus they contain metadata and mapping information that implies our domain code is fully aware of the persistence API and is coupled with it.

Now let's see how moving to hexagonal architecture helps us get around these issues. To do that, we need our repository layer or persistence layer to depend on the service layer or domain layer. So, basically, we need to invert the dependencies.

To invert dependencies first, we need to have an entity that's free of any ORM code. Next, our domain layer needs to expose a set of interfaces called ports, which our persistence layer needs to provide a concrete implementation.

It will be the persistence layer's job to convert these domain entities to ORM-managed entities and to perform the required operation. With this, our domain logic is free from any persistence code. Check the below UML class diagram for more clarity.

This decoupling does come at a price, though. As you can see, now we also need to manage domain entities beside ORM entities.

But look at the bright side: There's much to gain. For starters, our domain layer is completely decoupled. Also, you're now free to make your domain entities much richer with helper methods and numerous constructors, which you couldn't otherwise do with your ORM entities. This also allows us to apply domain-driven design (DDD) in its purest form.

Still, our domain layer won't be completely free of all the framework code, as interfaces that are being used in the domain layer need to be provided concrete implementation.

For this, we still rely on our dependency-injection (DI) frameworks, which will satisfy the dependencies at the runtime. So all the layers will still have a dependency on the DI framework. But usually, DI frameworks have a very low footprint on the code, and we can further reduce those footprints by using methods such as construction injection.

That's it! With this, we've taken our first step towards hexagonal architecture. There's still a long way to go. But that's it for now.



## GENERATED ARTICLE - GPT-2 Baseline model

Introduction: The concept of hexagonal architecture is a new one and it has been discussed extensively in various parts over the years but this book will give you an overview on how to implement it efficiently with your projects! There are many different ways to integrate these architectural concepts into your project so be sure to read through them carefully as they may contain information that can help you understand more about their meaning, structure and function. It is also possible to use other design patterns such as 3d/4d or polygonal models (e) which allow you to take advantage for example how we could go from 4 dimensional to flat without requiring any additional geometry material before implementing our first application using 2d3 & OpenStreetMap™ technology :)

### How To Build And Use This Form Of Building As An Example

The following page shows how we built our own simple building system by placing bricks at various heights between each other after some time; then placed the bricks under a sheet of glass called a "wall" like above. We now need to make sure that all those layers of plastic hold together perfectly when stacked vertically onto the wall(s). After having finished constructing the block walls layer 5 below, let's see what was happening next... All right. Next step? Let us check out why there wasn't anything left behind here... If everything went smoothly once again we would have gotten things done quickly - instead of spending hours trying to build small blocks around corners just waiting for everyone else to come up with their ideas. Now lets begin working on creating another dimension where no two pieces intersect, however if nothing goes wrong we should get ready for our next challenge.... How do we start something big...? What does it look like? Well I am going to cover both dimensions very briefly based off of my research back when we were still learning codebase techniques used for solving problems 1-5. However rather than taking away the basics part we want to discuss certain topics namely scale control, object construction, dynamic objects etc. So let me share four examples illustrating three main aspects of scaling applications during development : Scale Control, Dynamic Objects and Scene Layout Design Patterns. First thing you must know is that dynamically sized elements usually don't matter much because even though most systems work well enough while scaled down smaller sizes might mean performance issues due either to being

too large or not able to handle larger numbers of players. Once scalable items form within the same size group sometimes its difficult to tell whether or not they actually belong inside the correct individual container or simply falling apart later reveals themselves only temporarily depending upon context changes. When considering vertical stacking behavior whenever moving horizontally / forwards 'the amount of space required remains constant'. Similarly when pushing downwards it needs to remain stable until pushed further forward whilst increasing the horizontal weight depends on the position of the player positioned underneath the container itself. Thus far none of these properties appear to apply across every single instance of sharding behaviour found in today's game world. Secondly it helps to keep track of exactly how often units move regardless of distance travelled along the way! Finally although physical entities tend towards stability compared to complex structures i.e. tiles always provide sufficient protection against collisions causing damage whereas buildings cannot survive long periods of stress especially given the fact that several materials fall easily broken almost immediately leading to serious injuries resulting from repeated crashes. Lastly static objects generally seem to run slower since physically attached nodes vary greatly in speed ranging from 30 seconds per tile to 10 minutes per frame!! Remember that despite the potential downside of losing power constantly changing relative to grid orientation throughout games environment playtime varies considerably.. On top of that unlike real life servers who automatically reset positions randomly times fast running animations become extremely demanding. Also remember that keeping tabs on movement characteristics allows multiple people to continue playing simultaneously thus saving effort and reducing latency. By doing so adding higher level UI components takes less energy and therefore improves overall efficiency. With respect to image quality try putting high resolution images directly on front of your screen ;) While looking at raw pixel data really quick results can reduce lag caused by rendering heavy content faster providing better picture clarity.. Right? Then maybe seeing photos taken by others isn't necessarily bad... But perhaps viewing videos seems tedious eh?! Anyway please note that graphical fidelity doesn't depend on pixels anymore :-) That being said textures aren't quite perfect yet obviously texture compression means lots of processing resources needed to produce good visuals ;) You definitely won't be limited by graphics card settings!! At present HD60x version supports OpenGL ES 6.0a GL\_EXT\_texture\_array provides excellent 16 bit depth map support giving great detail levels suitable for stereoscopic displays. Furthermore low noise video

recording makes audio playback sound crisp and clear otherwise poor stereo reproduction looks terrible!!!! Yes yes indeed. No wonder developers love the idea of reusing old assets :( Actually writing software requires specialized programming skills.

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 0

Reason: The generated article does not focus on hexagonal architecture, dependency inversion, or related software development concepts. It instead presents a disjointed and unclear narrative that does not align with the specified topics.

### **Style and Tone Consistency (3 Points)**

Score = 0

Reason: The style and tone are inconsistent with an informative and technical article on software architecture. The content lacks clarity and structure, making it challenging to follow or glean useful information from.

### **Engagement and Readability (2 Points)**

Score: 0

Reason: The article is not engaging for readers looking for information on software development and architecture. It lacks focus and does not provide coherent or relevant information on the topic, making it difficult for readers to extract value.

### **Originality and Creativity (2 Points)**

Score: 0.5

Reason: While the article attempts to be original, it does so in a way that is not beneficial or relevant to the topic. The creativity does not contribute positively to the understanding of hexagonal architecture or software development.

### **Technical Accuracy and Depth (1 Point)**

Score: 0

Reason: The article does not accurately address the technical aspects of hexagonal architecture or dependency inversion. It lacks the depth and clarity expected for a technical article in the field of software development.

**Total Score: 0.5/10**

### **GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

I am writing this article to provide a step by step tutorial for building a hexagonal application in Visual Studio. I hope that you will find the learning process useful and helpful.

First, we need some background on how to build a hexagon (and thus, get it up and running quickly).

The first thing you need is to know the basics of hexagon architecture:

A hexagon is a set structure composed entirely of two or more squares. Each square represents a number of different units within a hexagon. For example, if we have 32 numbered units, we can create a cube with 33 as its starting point. The only problem is that each unit has 1 value which means that our base unit of measurement must be an integer between 0 and 9. If we want to go further, we can use a fixed-angle plane called a radius. That means we could make triangles using this principle. We would then calculate the height of each triangle divided by the width of the circle so that we had 4 equal points per square. Now we can visualize how our complex system works.

To help you understand what hexagons look like, I'm going to show you how to construct an object representing a given axis of rotation. This object is a cylinder based on the dimensions of each sphere created from the center of the cube. Because of this, we are able to represent the entire cylinder at once.

Let's start by creating the object.

First we need to determine the angle of rotation of each sphere. To do this, we need to calculate the minimum distance between the spheres. Let us now define the maximum distance between the spheres. When we draw this code, we see that the area around the sphere is 3x3 pixels larger than the whole diameter of the cylinder. Therefore, we should extend the line shown below to take the x and y directions of the cylinder. Since we are moving the cylinder rightwards, the angle of rotation of the sphere is always relative to the horizontal axis.

Now, let me explain what the angles of rotation are. They are determined by multiplying the length of the cylinder by 2. At this point, we're done. Then, we call the final part of our project "Hexagon".

There are many other important properties of Hexagon that come with hexagon design. Firstly, they allow us to express the mathematical aspects of the mathematics we were just discussing. Second, they enable us to implement multiple polygons simultaneously. Thirdly, they ensure that the geometry of the cube is exactly aligned with the desired orientation. Finally, they reduce the time required to write programs such as a matrix multiplication program.

Here's the full code for the Hexagon project:

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance(2 points)**

Score = 0.5

Reason: The generated article touches on hexagonal architecture but deviates significantly from the specific focus on inverting dependencies and applying it to software development.

### **Style and Tone Consistency (3 Points)**

Score = 1

Reason: The style is somewhat informal and lacks the structured, analytical depth expected in articles discussing software architecture

### **Engagement and Readability (2 Points)**

Score: 1

Reason: While somewhat readable, the article lacks a clear focus and coherent structure, making it less engaging and harder to follow

## **Originality and Creativity (2 Points)**

Score: 1

Reason: The article attempts to tackle the topic of hexagonal architecture but does so in a generic manner, lacking the specific original insights or detailed approach found in the actual article.

## **Technical Accuracy and Depth (1 Point)**

Score: 0.5

Reason: The technical discussion is present but is generic and not deeply connected to the specific nuances of hexagonal architecture in software development.

**Total Score: 4.5/10**

## **GENERATED ARTICLE - LLama -2 Baseline model**

As software developers, we are constantly striving to create more maintainable, scalable, and flexible systems. One approach that has gained popularity in recent years is Hexagonal Architecture, also known as Ports and Adapters Architecture. At its core, Hexagonal Architecture is about inverting dependencies, which means moving the dependencies from the core of the application to the periphery. In this article, we will explore the concept of inverting dependencies and how it can help us build better software.

What are Dependencies?

Before we dive into inverting dependencies, let's first understand what dependencies are in software development. In simple terms, dependencies are the external components or libraries that an application relies on to function. For example, a web application might depend on a database, a web server, or a payment gateway. These dependencies are typically hardcoded within the application, which can lead to tight coupling and make it difficult to change or replace the dependency without affecting the entire application.

Inverting Dependencies

Inverting dependencies means moving these external dependencies from the core of the application to the periphery. Instead of hardcoding the dependencies within the application, we create separate modules or components that handle the dependencies. This approach allows us to decouple the application from the dependencies, making it easier to change or replace them without affecting the rest of the application.

For example, consider a web application that depends on a database. Instead of hardcoding the database connection within the application, we create a separate module that handles the database connection. This module can be easily replaced or changed without affecting the rest of the application.

## Benefits of Inverting Dependencies

Inverting dependencies has several benefits, including:

1. **Decoupling**: By moving the dependencies to the periphery, we decouple the application from the dependencies, making it easier to change or replace them without affecting the rest of the application.
2. **Flexibility**: Inverting dependencies allows us to easily switch between different dependency implementations, such as using a different database or web server.
3. **Maintainability**: With inverting dependencies, we can make changes to the dependencies without affecting the rest of the application, making maintenance and updates easier.
4. **Scalability**: Inverting dependencies makes it easier to scale the application by adding more instances of the dependency modules, without affecting the rest of the application.

## Challenges of Inverting Dependencies

While inverting dependencies offers many benefits, it can also present some challenges, including:

1. **Increased complexity**: Inverting dependencies can add complexity to the application, especially if not done correctly.

2. **Additional overhead**: Creating separate modules or components for dependencies can add additional overhead, such as increased build times or more complex deployment processes.
3. **Learning curve**: Inverting dependencies can require a different mindset and skillset than traditional software development, which can present a learning curve for developers.

## Best Practices for Inverting Dependencies

To overcome these challenges and maximize the benefits of inverting dependencies, here are some best practices to keep in mind:

1. **Keep it simple**: Avoid over-engineering the dependency inversion. Keep the modules or components simple and focused on their specific dependencies.
2. **Use existing frameworks**: Utilize existing frameworks and libraries to simplify the process of inverting dependencies.
3. **Test thoroughly**: Test the dependency inversion thoroughly to ensure that it works as expected and doesn't introduce any issues into the application.
4. **Document everything**: Document the dependency inversion process and the resulting modules or components to ensure that they are easy to understand and maintain.

## Conclusion

Inverting dependencies is a powerful technique for creating more maintainable, scalable, and flexible software systems. By moving the dependencies from the core of the application to the periphery, we can decouple the application from the dependencies, making it easier to change or replace them without affecting the rest of the application. While inverting dependencies can present some challenges, following best practices can help overcome these challenges and maximize the benefits of this approach. As software developers, it's important to stay up to date with the latest techniques and approaches, and inverting dependencies is definitely one of them.



## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 1.5

Reason: The generated article stays on topic, discussing the concept of inverting dependencies and hexagonal architecture. It aligns with the title and tags and provides an overview of the subject. However, it lacks the specific, real-world examples and the depth of technical discussion present in the actual article.

### **Style and Tone Consistency (3 Points)**

Score = 2

Reason: The style of the generated article is informative and aligns reasonably well with a typical informative and insightful Medium article. However, it doesn't fully capture the personalized narrative and depth that the actual article provides.

### **Engagement and Readability (2 Points)**

Score: 1.5

Reason: The article is readable and well-structured, making it accessible to readers. However, it lacks the engaging elements, such as personal anecdotes or case studies, which are characteristic of Medium articles and were present in the actual article.

### **Originality and Creativity (2 Points)**

Score: 1.5

Reason: The article presents the concept of hexagonal architecture in a straightforward manner. While it shows an understanding of the topic, it does not offer the unique insights or innovative approaches that the actual article does.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The article is technically accurate in its overview of hexagonal architecture and dependency inversion. However, it lacks the technical depth, specificity, and the detailed explanations found in the actual article.

**Total Score: 7.2/10**

## **GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

As technology continues to advance at a rapid pace, software development has become increasingly complex. As more companies are looking for ways to stay ahead of the competition, they have found that by inverting dependencies they can achieve a hexagonal architecture which is a key component of any modern software development project. \n\nOne thing you need to keep in mind when building your application is how it will work with other components of the system. You should think about what functionality needs to be available in each module so that it can be easily integrated into another part of the system without having to worry about compatibility issues or potential errors that might occur during integration. This way you can ensure that everything works seamlessly together and there won't be any unexpected problems down the line due to poor planning or design decisions made early on in development stages.\n\nDependency injection is an important concept that every developer should understand before diving deep into software development projects. It's all about taking control over how code behaves and ensuring that things happen as expected in order to avoid any problems or bugs in the future. By using dependency injection, developers can create applications with flexibility built right into them so they can adapt to changing requirements without having to rewrite large parts of their codebase.\n\nWhen designing any system, one must always consider what kind of structure will work best for its intended purpose. Whether this means creating different modules with different functions depending on what needs to be done or making sure certain features are present from the start, good system design goes a long way toward ensuring success down the road when working on larger scale projects. By thinking carefully about how something needs to behave before starting development, developers can avoid costly mistakes later down the line by getting everything set up correctly before moving forward.

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance(2 points)**

Score = 1.6

Reason: The article maintains coherence with the topic of software development and the concept of hexagonal architecture. It addresses relevant points like dependency injection and system design. However, it lacks the specific focus on transitioning to hexagonal architecture, which is central to the actual article.

### **Style and Tone Consistency (3 Points)**

Score = 2.1

Reason: The style is professional and informative, suitable for a technical audience. It slightly misses the depth and detailed explanation that the actual article provides, which is a characteristic element of in-depth technical articles on platforms like Medium.

### **Engagement and Readability (2 Points)**

Score: 1.7

Reason: The article is structured in a clear and readable manner. However, it could benefit from more engaging elements such as practical examples or case studies, which are often used in technical articles to enhance understanding and engagement.

### **Originality and Creativity (2 Points)**

Score: 1.7

Reason: The article offers a general perspective on software development and architecture principles, showing a degree of originality. However, it lacks the unique insights or creative approaches that would make it stand out more distinctly.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The article touches on relevant concepts in software development but does not delve deeply into the specifics of hexagonal architecture, which is a key aspect of the actual article's topic. The technical depth is somewhat limited.

**Total Score: 7.8/10**

## **EVALUATION 5**

### **PROMPT TITLE**

“Simple Edge Detection Model using Python”

### **PROMPT TAGS**

Programming, Deep Learning, Artificial Intelligence, Technology, Machine Learning

## ACTUAL ARTICLE FROM THE DATASET

In this post, I will show you how to detect the edges in an image. Writing an edge detection program will give you some understanding of computer vision and self-driving cars. Edge detection is commonly used to understand objects in an image. It also helps the machines to make better predictions. Writing an edge detection program is a great way to understand how machines see the outside world. This will give us a better perspective when it comes to computer vision.

I covered a couple of computer vision concepts in my previous articles: face detection, face recognition, and text recognition. And today, we will work on edge detection using python.

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## GENERATED ARTICLE - GPT-2 Baseline model

SimpleEdgeSolver.py was inspired by the Django Simple Edge Indexer project, but instead of adding a more robust security layer to our model we simply added some useful features such as automatic edge detection and better performance for users with good internet connections. We are excited to introduce this new feature to simplify its development process!

The main goal of SimpleElementModel is to be very lightweight because it relies on most resources at once, not only through HTTP/2 but also via XMLHttpRequest, so that you can easily update your code without having to worry about making changes afterwards. However, if you want to use an application like Ansible which has many built-in third-party frameworks including SQLite3 or ASP.NET Core then there's no need to install any additional dependencies (either manually from the web server or directly from Jenkins). Instead, just start building everything up into a single dependency tree called SimpleElementModel. Once all the information is updated within one file system I'm happy enough with what my implementation looks like; now how do I get started? First off, let me explain why I prefer creating a simple attribute object when other tools won't make sense given their limited capabilities. The simplest way to create a simple element is by subclassing SimpleElementModel<T> :

```
class SimpleElementModel < T > { public: SimpleElementModel() {} // Creates a
short-lived type instance @Override public Object clone(T t) { super (); return this
; } };
```

Here we're defining the base class definition where each field must have something similar to the following property name:

```
static void Main() { const SimpleElementModel<T>(t); // Create the first instance
var x = New SimpleElementModel(); x.Add("example"); int arg1 = 0; while
(!x.HasNext()) { // Do nothing else try { arg1++; } catch (ArgumentException ex) {
Console.WriteLine("Invalid argument" + ex.Type); Console.WriteLine("Error",
ex.Value); } } static String value = "Example."; m_values[arg1].ToString();
assert(value); console->Println(value); endwhile; }
```

Notice how the above command prints out the attributes used in our example – here they are available thanks to javax.xml.etextion. This gives us the basic idea behind the API being created and encapsulated inside a complex method named SimpleElementModel<T>. In fact, these methods may seem quite different between scripts running under Windows XP and newer versions of OpenCL. On Mac OS X, however, those two packages will work well together too. But consider yourself warned - even though JAVA does provide implementations of both JavaFX 3 and 4, neither supports MIME types. To add another reason why simplicity is important, remember that PureScript doesn't support SVG data structures either. Since the output format is fairly small compared to plain text files, pureScript uses regular expressions rather than floats...so perhaps JavaScript isn't worth learning over time anymore. With jQuery 2.0 we'll see whether this approach really works properly since HTML5 still runs great regardless of browser compatibility issues. Finally, after writing down the steps described below, note that whenever we invoke SimpleElementModel::createInformalMessage('Hello World') we should immediately pass every line to our JSONFormatter interface before returning a response containing elements drawn from HTML5 based browsers. For non-Javascript script owners, maybe don't bother doing anything wrong 😊 It is highly recommended that developers know exactly how to write functions defined in Javascript, PHP, C#, etc., so that anyone who needs them knows full details right away. Unfortunately, sometimes people forget to check documentation carefully throughout the course of coding projects. If you find errors regarding

syntax highlighting, please report them publicly :) So far so good. Here's the thing though, i love JS. As long as everyone reads it correctly, you could say that javascript is awesome. Besides, lotsa bit easier to learn 😊 Well done to GitHub Contributors

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 0

Reason: The content is incoherent and irrelevant to the specified title and tags. It deviates significantly from discussing a simple edge detection model using Python, instead talking about a range of unrelated topics from web technologies to JavaScript, which does not align with the topic of edge detection in computer vision.

### **Style and Tone Consistency (3 Points)**

Score = 0

Reason: The style and tone of the article are not consistent with what is expected in an educational or technical article about programming and machine learning. The content lacks a focused and clear presentation suitable for a piece on deep learning and artificial intelligence.

### **Engagement and Readability (2 Points)**

Score: 0

Reason: The article is not engaging or readable for an audience interested in learning about edge detection using Python. The disjointed nature and off-topic content make it confusing and unengaging.

### **Originality and Creativity (2 Points)**

Score: 0.5

Reason: While the article may have some elements of originality in its content, it is creatively misaligned with the intended subject matter of simple edge detection using Python. The originality does not add value in the context of the title and tags provided.

## Technical Accuracy and Depth (1 Point)

Score: 0

Reason: The article does not provide any accurate or in-depth technical information related to edge detection, Python programming, or relevant machine learning concepts. It strays into unrelated technical areas, failing to address the intended subject.

**Total Score: 0.5/10**

### GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA

Python is a high-performance, cross-platform language for generating and displaying large images. It provides several performance benefits over traditional image recognition systems (i.e., JPEG). However, it is not easy to create an efficient algorithm that can render the same picture in all dimensions. The simplest way to solve this problem is by building a simple model of a given frame.

The simplest approach is to use a classifier with a set of attributes. In this case we can see that our data is divided into two components: the pixels which are used as input and the edges which are used as output. We have already seen that pixel counts vary widely between different layers, but when we combine these parameters together we get a very elegant solution. The following steps help you determine the correct fit of the models:

First, let us define the elements within the classifier:

```
class Frame : def __init__ ( self, px, y, width, height ) : # Create a new instance of
the Frame class
class MetaFrame : def __init__meta () -> Frame ( px = 'X', y=10, width
= 10, height = 20, size = 30 ) : return Frame ( py = 'Y')
def __user__ ( self ): self.
_id = px
if __name__ == '__main__': pass
```

Then we need to build the MetaFrame subclass. Using the base class, we can easily add additional properties such as a width and height attribute. These include the type of the edge detection function and the minimum number or maximum number needed to detect each pixel. For example, here's an example showing how to generate both frames on the same computer.

Here is the code for the MetaFrame classifier:

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance(2 points)**

Score = 0.5

Reason: The generated article lacks coherence and strays from the central theme of simple edge detection using Python. It diverges into unrelated technical details.

### **Style and Tone Consistency (3 Points)**

Score = 1.5

Reason: The style is somewhat consistent but overly technical and complex, which might not align well with the instructional nature expected from an article on this topic.

### **Engagement and Readability (2 Points)**

Score: 0.5

Reason: The content is not engaging due to its lack of focus and clarity, making it challenging for readers, particularly those interested in Python and edge detection.

### **Originality and Creativity (2 Points)**

Score: 1

Reason: While the article attempts to tackle a technical subject, it lacks the focused creativity and original insight expected in a piece about edge detection using Python.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.25

Reason: The article fails to provide accurate or in-depth information about edge detection using Python, straying into generalized and irrelevant technical discussions.

**Total Score: 3.75/10**

## **GENERATED ARTICLE - LLama -2 Baseline model**

Edge detection is a fundamental task in image processing, and there are many algorithms available to perform this task. In this article, we will explore a simple edge detection model using Python.



Edge detection is the process of identifying the boundaries between different regions in an image. These boundaries can be used for a variety of applications such as object recognition, image segmentation, and image compression. There are many edge detection algorithms available, including the Canny edge detector, Sobel operator, and Laplacian of Gaussian (LoG). However, these algorithms can be computationally expensive and may not be suitable for real-time applications.

In this article, we will implement a simple edge detection model using Python. The model is based on the gradient of an image, which is calculated using the Sobel operator. The gradient is then thresholded to produce an edge map.

### Code

First, import the necessary libraries:

```
...
```

```
import numpy as np
import matplotlib.pyplot as plt
```

```
...
```

Next, load an image and apply the Sobel operator to calculate the gradient:

```
...
```

```
image = plt.imread('image.jpg')
grad_x = np.gradient(image, axis=0)
grad_y = np.gradient(image, axis=1)
```

```
...
```

The gradient is a 2D array, where each element represents the gradient of the image in the corresponding direction.

Threshold the gradient to produce an edge map:

```
...
```

```
edges = np.zeros_like(image)
edges[np.abs(grad_x) > 50] = 1
edges[np.abs(grad_y) > 50] = 1
```

```
...
```

In this example, we set the threshold to 50, which means that any pixel with a gradient value greater than 50 will be considered an edge.

Finally, plot the original image, the edge map, and the thresholded edge map:

```
...
```

```
plt.subplot(121)
plt.imshow(image)
plt.title('Original Image')
```

```
plt.subplot(122)
plt.imshow(edges)
plt.title('Edge Map')
```

```
plt.subplot(123)
plt.imshow(edges[np.abs(grad_x) > 50])
plt.title('Thresholded Edge Map')
plt.show()
...
```

This code will produce a plot of the original image, the edge map, and the thresholded edge map. The thresholded edge map will highlight the edges in the image.

### ### Conclusion

In this article, we demonstrated a simple edge detection model using Python. The model is based on the Sobel operator and thresholding to produce an edge map. This model can be used for a variety of applications such as object recognition, image segmentation, and image compression.

Edge detection is a fundamental task in image processing, and there are many algorithms available to perform this task. However, this simple model can be useful for real-time applications where computational efficiency is important.

We hope this article has provided a helpful introduction to edge detection using Python.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance(2 points)**

Score = 1.5

Reason: The generated article aligns well with the title and tags, discussing a simple edge detection model using Python. It is coherent and stays on topic, providing a general overview of edge detection and a Python example. However, it lacks the depth and more comprehensive explanation provided in the actual article.

### **Style and Tone Consistency (3 Points)**

Score = 2

Reason: The style of the generated article is educational and informative, suitable for a piece on programming and machine learning. It maintains a clear and concise tone, but it does not completely match the more detailed and engaging style of the actual article.

### **Engagement and Readability (2 Points)**

Score: 1.5

Reason: The article is readable and provides clear instructions, which makes it accessible to readers interested in programming. However, it lacks the engaging elements like detailed explanations and context that enhance the readability of the actual article.

### **Originality and Creativity (2 Points)**

Score: 1.5

Reason: The article offers a basic approach to edge detection using Python, demonstrating a degree of originality in its method. However, it does not introduce unique insights or creative approaches to edge detection that are evident in the actual article.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The technical content in the generated article is accurate and provides a basic understanding of using Python for edge detection. However, it lacks the comprehensive technical depth and detailed explanation found in the actual article.

**Total Score: 7.2/10**

## **GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

Edge detection is a fundamental task in image processing that involves identifying the boundaries between different objects or regions in an image. There are various techniques used for edge detection, including thresholding-based methods, gradient-based methods, and machine learning-based methods. In this article, we will introduce a simple edge detection model using Python, which can be used for various applications such as object detection, facial recognition, and scene understanding.

The basic idea of edge detection is to identify the boundaries between different objects or regions in an image by analyzing their color, texture, and shape. The edges are then extracted from these boundaries, and they are used to create a new image with enhanced contrast and detail. This new image can be further processed to remove noise, smooth out the edges, and enhance the overall quality of the image.

There are several approaches to edge detection, including:

1. Thresholding-based methods: These methods involve applying a threshold value to the pixel values of an image to separate the edges from the rest of the image. The most common thresholding method is the Otsu's threshold method, which is based on the histogram of the pixel values.
2. Gradient-based methods: These methods involve calculating the gradients of the pixel values in an image to identify the edges. The most common gradient-based method is the Sobel operator, which calculates the horizontal and vertical gradients of the pixel values.
3. Machine learning-based methods: These methods involve training a machine learning model to recognize the edges in an image. The most common machine learning-based method is the support vector machine (SVM), which uses a set of features to classify the pixels as edges or non-edges.
4. Hybrid methods: These methods combine two or more of the above approaches to improve the accuracy of edge detection.

In this article, we will focus on the last approach, i.e., hybrid methods, and show how to implement a simple edge detection model using Python. We will use the OpenCV library, which provides a wide range of functions for image processing, including edge detection.

The steps involved in implementing a simple edge detection model are as follows:

1. Load an image into memory: The first step is to load an image into memory using the OpenCV library. We can use any image, but for simplicity, let's use a grayscale image with a resolution of 640x480 pixels.
2. Convert the image to grayscale: The next step is to convert the image to grayscale using the OpenCV library. Grayscale images

have only one color channel, which makes it easier to analyze the edges.\n3. Apply a threshold value: The next step is to apply a threshold value to the grayscale image to separate the edges from the rest of the image. We can use any threshold value, but for simplicity, let's use a threshold value of 128.\n4. Calculate the gradients: The next step is to calculate the gradients of the pixel values in the image. We can use any gradient calculation method, but for simplicity, let's use the Sobel operator.\n5. Combine the gradients and edges: The final step is to combine the gradients and edges to produce a new image with enhanced contrast and detail. We can use any combination method, but for simplicity, let's use a simple concatenation.\n\nHere is the code for implementing a simple edge detection model using Python:\n```\nimport cv2\n\n# Load an image\nimg = cv2.imread("image.jpg")\n\n# Convert the image to grayscale\ngray = cv2.cvtColor(img, cv2.COLOR\_BGR2GRAY)\n\n# Apply a threshold value\nthresh = cv2.threshold(gray, 128, 255, cv2.THRESH\_BINARY)[1]\n\n# Calculate the gradients\ngrad = cv2.Sobel(thresh, cv2.CV\_8U, 1, 0, ksize=3)\n\n# Combine the gradients and edges\nedges = cv2.Canny(grad, 50, 150, apertureSize=3)\n\n# Display the edges\ncv2.imshow("Edges", edges)\n\ncv2.waitKey(0)\ncv2.destroyAllWindows()\n```\n\nThis code loads an image, converts it to grayscale, applies a threshold value, calculates the gradients, combines them with the edges, and displays the edges. You can modify the parameters of the thresholding function and the gradient calculation function to adjust the sensitivity of the edge detection.\n\nConclusion:\n\n

## EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA

### Content Coherence and Relevance(2 points)

Score = 1.6

Reason: The generated article provides a coherent explanation of edge detection methods in image processing, relevant to the tags provided. It covers different techniques like thresholding and gradient-based methods, which aligns with the general topic. However, it lacks the specific focus on a Python implementation for edge detection, which is a key aspect of the actual article.

### **Style and Tone Consistency (3 Points)**

Score = 2

Reason: The style of the generated article is informative and appropriate for a technical audience interested in programming and machine learning. However, it lacks the direct, tutorial-like approach that the actual article has, which is often preferred in educational and practical programming content.

### **Engagement and Readability (2 Points)**

Score: 1.8

Reason: The article is structured in a clear and readable manner, presenting the information in an accessible way. While it effectively conveys technical concepts, it could be enhanced with more engaging elements like practical examples or visual aids to increase reader engagement.

### **Originality and Creativity (2 Points)**

Score: 1.7

Reason: The article introduces edge detection concepts in a straightforward way and provides a basic framework for understanding different methods. While it's original in its explanation, it doesn't offer unique insights or innovative approaches that could make it stand out more distinctly in the field of machine learning and image processing.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The article provides an accurate overview of various edge detection methods but doesn't go into depth regarding the practical implementation of these methods using Python, which is crucial given the tags and the context of the actual article.

**Total Score: 7.8/10**

## **EVALUATION 6**

### **PROMPT TITLE**

Applying design to supply chain data

### **PROMPT TAGS**

Design, Data, Supply Chain, Data Visualization, UX

### **ACTUAL ARTICLE FROM THE DATASET**

Supply chain data are complex, multilayered, and sometimes hard to untangle. When it comes to using data to make decisions, design has a crucial role in ensuring data are efficiently understood. With the right presentation and interpretation, supply chain data can be transformed into actionable insights that lead to more sustainable, more secure, and more robust supply chains.

For three years now we've been collaborating with the Stockholm Environment Institute (SEI) and Global Canopy Programme (GCP) to visualise supply chain data on Trase.Earth. The platform currently provides data and insights on 13 commodities from eight countries. As the number of platform users increased, the experience and needs of those people diversified too. From journalists revealing the links between burgers and deforestation to companies wanting to understand the environmental impact of their supply chains, people across the world are using Trase to understand the links between forests and the food on our plates.

So, after a careful review of the Google Analytics and research by the Engagement Team at Global Canopy that includes interviews with people who use the platform, we embarked on a redesign that provides more guidance to first-time users and offers faster access for all users. In this blog we'll review some of the goals we wanted to achieve with the redesign, and explain how they make complex data easier to understand.

Goal 1. First-time users feel comfortable with the tool.

When Trase.Earth was first created, the teams at SEI and Global Canopy often gave presentations or one-on-one introductions to those who were interested in using it. While this was an amazing opportunity to get an expert's insight into the

intelligence within the dataset, it's not a scalable approach. To make the data more accessible to those who don't have a trade data expert on hand, our designers reimagined the entry points to Trases data tools.

The goal our designers wanted to achieve was making first-time visitors feel welcome and spark their curiosity. To leave them feeling like they've been shown what they can do with the data, and what insights they can extract from it. By reducing the friction that comes with learning how to use a new tool, we are able to draw people deeper into the data while giving them context and interesting numbers to sink their teeth into.

Goal 2. Navigation that's easy as 1,2,3.

Easy, fluid navigation is crucial for both first-time and returning users. For Trase, our designers created a step-by-step approach that introduces the different data options while showing users how the tool works.

Upon arrival on the data tool page, the first step is to select a commodity.

## **GENERATED ARTICLE - GPT-2 Baseline model**

The basic idea behind this paper is that we can write a specification for an application or service, and then apply the concepts of dependency injection into it. The first step would be to implement an object-oriented approach to code generation in Java (as described above). We could say "we're going to use `java.util.concurrent`", but when you look at what's actually happening here, there are no obvious ways to put together your own system; instead, let's just do some simple stuff like using dynamic types rather than static classes. For simplicity sake, I'll leave out the fact that all these methods depend on each other - if they were really not compatible with one another, they'd need to go through multiple iterations before being resolved! That said, since our implementation requires two objects which both have dependencies on each other, how exactly does any of those checks work? Well, simply by doing something different every time you call them from within an existing class, so long as their initial state changes over time. There's nothing wrong with calling such things directly without expecting runtime errors either - even though we don't know anything about running tests against actual implementations yet, probably won't ever see the light of day until later. But why should users want to get involved in testing everything because we haven't been able to test its performance? It might sound counterintuitive at first, given that most



developers only care about unit tests anyway. However, once people realise that trying to build new features has huge consequences, they will start looking beyond generic abstractions. By putting up a bunch of concrete examples where specific functionality doesn't make sense, applications become more complex... And while writing real applets isn't enough, adding external support means defining interfaces between classes — meaning implementing behavior based on interface values needs to take much longer than designing a single API key. On top of that, building apps involves taking away knowledge about logic requirements, creating boilerplate libraries around shared library names, etc. If user input gets too hard, he/she may choose not to bother learning further about his/her environment. At the same time, having built many small projects already feels weird. In my opinion, getting started with JDK 8 gives you far less experience working with JVM components, frameworks, & APIs than developing statically typed languages. Although I understand that non-java programmers often find myself frustrated after passing along problems due completely unrelated issues to language coding, I'm still optimistic that development will reach maturity fast enough for us to begin exploring additional techniques for interacting with functionalities outside of Javascript. So now that we've established ourselves as a world leader in developer productivity, maybe it wasn't possible to stop worrying about bugs and wasting precious resources waiting for bug fixes. This article is intended to help educate others who think otherwise...and hopefully encourage better practices across the industry. As always please feel free give feedback via Twitter (@JUnit) or Facebook. Also check out the following articles designed to highlight common pitfalls surrounding Scala idioms, including the best way to solve problem behaviors yourself

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 0

Reason: The generated article does not address the topic of applying design principles to supply chain data. Instead, it delves into a technical discussion about Java and dependency injection, which is unrelated to the specified themes of design, data visualization, and supply chain management.

### **Style and Tone Consistency (3 Points):**

Score: 0

Reason: The style and tone of the generated article are inconsistent with what is expected from an article focused on design and data visualization in supply

chains. The content is technical and specific to software development, which does not align with the intended subject matter.

**Engagement and Readability (2 Points):**

Score: 0

Reason: The content is not engaging for readers seeking information on design applications in supply chain data. It is complex and centered around software development concepts, making it inaccessible and irrelevant to the intended audience.

**Originality and Creativity (2 Points):**

Score: 1

Reason: While the article provides a unique perspective on software development, it fails to creatively address or contribute to the topic of design in supply chain data. The originality does not enhance the relevance or usefulness of the article for the specified topic.

**Technical Accuracy and Depth (1 Point):**

Score: 0.5

Reason: The article appears to be technically sound in its discussion of software development but lacks accuracy and depth in relation to the intended focus on supply chain data and design. The technical content is misaligned with the topic.

**Total Score: 1.5/10**

**GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

“Design is a good thing, but it’s not the only part of the product”

When I was looking for ways in which we could make our products more useful to consumers, I found myself needing to develop an app to provide customers with their personal information on every aspect—not just their email address, phone number and even where they live.

I wanted apps to allow us to create personalized user profiles that were unique for each customer.

While there are many reasons for this, I think it's important to get the right balance between providing users with accurate information and minimizing the risk of mistakes and misinformation.

So, I came up with the idea of a simple application that would help you use your knowledge and experience to better manage your team.

In this article, I'm going to cover how to build an app that helps you communicate easily through your client's social media channels and share meaningful content across all platforms.

I will also break down the steps required to deliver the service using this framework and then describe how we can leverage it to improve your business.

## Getting Started

To start building your app, you'll need some basic understanding of the platform and its infrastructure. To do this, you'll need some familiarity with the different tools available to you and the current state-of "mobile" support.

We're going go from there.

Before we dive into building our app, we'd first have to understand the various features and capabilities of each of these services.

These services offer functionality such as:

User Profiles

Personalized Profile

Customer Accounts

Account Management

Note that if you've already built your app, you should be familiarizing yourself with them before starting this process. It's necessary to know what they are or why they work, but it's quite fun to learn about them!

For example...


If you've ever worked with a database, then you might have noticed that most databases don't handle long periods (like years). The problem is that they tend towards slow loading times, so you'll want to keep track of when you uploaded your project and see what happens after a period.

This allows us — in some cases — to automate things like getting feedback from the developers or reporting bugs along the way.

By adding a UserProfile, we can quickly add new accounts and populate their profile settings while maintaining a consistent flow of traffic across multiple servers. In other words, it's a lot easier to maintain a successful workflow than manually managing those types of requests.

You can check out the full list of Service Packages [here](#).

Step #1: Generate a template

Once you've created your application and sent it a template, you can import the templates into the application by pressing .

Let's say we wanted to publish our blog post to Twitter. But instead we've used a custom PostType, so we decided to stick with the CustomPost type.

Creating Template

After creating the template, we can simply upload the files directly into our website. This is trivial for now. We'll send a request to our clients via the API endpoint below:

`https://www.twitter.com/api/get?request_id=1030&client_id=123555243967151620&user_name = 'john'`

First we'd set up a few options to customize our response. First, let's change the following code snippet:

```
public class Example { public static void Main(String[] args) throws Exception {  
String name; } public static void Sidebar(String[] args) throws Exception{ string  
email_address; } private static int GetUrl() throws Exception { return null; } }
```

Now we can run our app and save the file inside our directory. Next, we finally move our JSON payload over to our server. Let's put the ContentContext property back under the <form action="POST"> :<input type="text" placeholder="Email address" value="john@example.com"/>

Now, let's generate a POST form once again. Here's the code sample:

```
public class Example { public static final String WidgetName = "MyApp"; public  
static final String Username = "" ;... }
```

That's it! Now we're ready to deploy our app.

## Building Your Startup

As mentioned above, you'll need some basic knowledge about the backend layer and the HTTP Server stack. You can find more info about the main components at <https://webapp>.

## EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA

### Content Coherence and Relevance (2 points):

Score: 1

Reason: The generated article discusses app development and user experience, which loosely connects to the tags but diverges significantly from the specific focus on supply chain data and design.

**Style and Tone Consistency (3 points):**

Score: 1

Reason: The style is somewhat informal and lacks the structured, analytical approach typically seen in articles discussing design and data in a business context.

**Engagement and Readability (2 points):**

Score: 1

Reason: While somewhat readable, the article lacks a clear focus and structure, making it less engaging and harder to follow.

**Originality and Creativity (2 points):**

Score: 1

Reason: The article attempts to tackle the topic of app development and user profiles, but it lacks the specific creativity and original insights related to design in supply chains.

**Technical Accuracy and Depth (1 point):**

Score: 0.5

Reason: The technical discussion is present but is generic and not deeply connected to the specific nuances of applying design to supply chain data.

**Total Score for Generated Article: 4.5/10**

**GENERATED ARTICLE - LLama -2 Baseline model**

Design is a crucial aspect of supply chain management. It can help organizations to visualize and analyze complex data, making it easier to identify trends, inefficiencies, and areas for improvement. In this article, we will explore the role of design in supply chain data and how it can be applied to improve supply chain management.

**Designing for Supply Chain Data**

Designing for supply chain data involves creating visual representations of complex data sets to help organizations understand and analyze their supply chain operations. This can include creating charts, graphs, and other visualizations that help to identify trends and patterns in the data. By using

design to visualize supply chain data, organizations can gain a better understanding of their operations and identify areas for improvement.

One of the key benefits of designing for supply chain data is that it can help organizations to identify inefficiencies and bottlenecks in their operations. By visualizing data, organizations can see where delays are occurring and where improvements can be made to streamline their operations. This can lead to cost savings, faster delivery times, and improved customer satisfaction.

Another benefit of designing for supply chain data is that it can help organizations to identify opportunities for innovation. By analyzing data visualizations, organizations can identify areas where they can improve their operations and develop new products or services. This can help organizations to stay competitive and ahead of the competition.

### Applying Design Thinking to Supply Chain Data

Design thinking is a problem-solving approach that involves empathy, ideation, prototyping, and testing. By applying design thinking to supply chain data, organizations can develop innovative solutions to complex problems.

One of the key steps in the design thinking process is empathy. This involves understanding the needs and pain points of stakeholders, including customers, suppliers, and employees. By understanding the needs of these stakeholders, organizations can develop solutions that meet their needs and improve their overall supply chain operations.

Another important step in the design thinking process is ideation. This involves generating a wide range of ideas for solving a problem. By using design thinking to visualize supply chain data, organizations can generate a wide range of ideas for improving their operations, from streamlining their logistics to developing new products or services.

Prototyping and testing are also important steps in the design thinking process. By creating prototypes of their ideas, organizations can test them and refine them based on feedback from stakeholders. This can help organizations to develop solutions that are effective and efficient.

In conclusion, design plays a crucial role in supply chain management. By visualizing and analyzing complex data sets, organizations can identify trends, inefficiencies, and areas for improvement. By applying design thinking to supply chain data, organizations can develop innovative solutions to complex problems and improve their overall supply chain operations. Whether you are a designer, a supply chain manager, or a business leader, understanding the role of design in supply chain management can help you to improve your operations and stay ahead of the competition.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 1.5

Reason: The article stays on topic, discussing the importance of design in supply chain data visualization. It aligns well with the title and tags but lacks the specific examples and depth of the actual article.

### **Style and Tone Consistency (3 Points):**

Score: 1.5

Reason: The style is informative and aligns somewhat with Medium's insightful tone. However, it lacks the detailed, narrative-driven approach that the actual article demonstrates, which is a hallmark of many Medium pieces.

### **Engagement and Readability (2 Points):**

Score: 1.5

Reason: The article is readable and structured in a clear manner, but it doesn't engage the reader with compelling examples or storytelling, which are key elements in Medium articles.

### **Originality and Creativity (2 Points):**

Score: 1.5

Reason: The concept of applying design to supply chain data is addressed, showing an understanding of the topic. However, the discussion lacks the original insights or creative approaches seen in the actual article.



### **Technical Accuracy and Depth (1 Point):**

Score: 0.7

Reason: The article provides an accurate overview of the role of design in supply chain data analysis but does not delve into the technical details or provide the in-depth analysis present in the actual article.

**Total Score: 6.7/10**

### **GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

It's easy to overlook the importance of aesthetics when it comes to supply chain management. After all, most people focus on practicality and efficiency in this field. However, that does not mean you can't make your supply chain more beautiful. In fact, making your supply chain data more visually appealing has many benefits for both you and your customers. \n\nThe first step is to collect information from different sources, such as inventory levels, shipping statuses, and product quality ratings. You can also use this data to identify trends or patterns in your supply chain. For example, if you notice that a particular supplier consistently delivers products late, you may want to consider switching to another supplier who consistently delivers on time.\n\nOnce you have identified areas where improvement is needed, the next step is to create visualizations of the data. This could include charts or graphs showing how different factors are related to each other, or even interactive dashboards that allow users to explore different aspects of their supply chain in real-time. The key is to present the data in an engaging way that makes it easy to understand and act upon.\n\nOne popular tool for creating these visualizations is Tableau. It allows you to connect with various data sources and create interactive visualizations without any programming knowledge required. Other tools include Excel, Google Sheets, or even custom software development. Whichever tool you choose, the important thing is to ensure that your visualizations are clear, concise, and easy to use.\n\nAnother benefit of using design in supply chain management is that it can help to identify potential problems before they become major issues. By visualizing your supply chain data in an intuitive way, you can quickly see which areas need attention and take action accordingly.\n\nFinally, one of the most significant advantages of using design in supply chain management is that it can help to improve customer satisfaction. By providing clear visualizations of your supply chain data, you can better communicate with your customers about what

to expect and provide them with timely updates throughout the entire process. Whether you are using a visual representation of your supply chain or just providing updates via email or social media, the key is to be transparent and consistent in your communication so that customers feel informed and valued.\n\nIn conclusion, there are many benefits to applying design principles to supply chain management. Not only can it help improve efficiency and profitability but also increase customer satisfaction and reduce risk. So why not give it a try? With the right tools and techniques, you can turn your supply chain data into a powerful asset that will help you stay ahead of the competition and achieve long-term success.

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **1. Content Coherence and Relevance (2 Points)**

Score: 1.7

Reason: The generated article is relevant to the tags provided and discusses the importance of design in visualizing and understanding supply chain data. However, it lacks a specific focus on the application of these principles in a real-world context, as seen in the actual article with the Trase.Earth platform.

### **2. Style and Tone Consistency (3 Points)**

Score: 2.2

Reason: The style is informative and suitable for an audience interested in supply chain management and data visualization. While it maintains a professional tone, it doesn't fully capture the practical, case-study-driven approach of the actual article.

### **3. Engagement and Readability (2 Points)**

Score: 1.8

Reason: The article is structured in a clear and understandable manner, making it accessible to readers. However, it could benefit from more engaging elements like specific examples or case studies, which are often used in articles to enhance understanding and engagement.

#### **4. Originality and Creativity (2 Points)**

Score: 1.7

Reason: The article introduces the concept of applying design to supply chain data, showing a degree of originality. It presents general ideas on data visualization and tools but lacks the creative insights or unique applications found in the actual article.

#### **5. Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The article provides an accurate overview of the importance of design in supply chain data visualization but lacks the depth and detailed exploration of these issues, particularly in the context of a specific application or platform, as seen in the actual article.

**Total Score: 8.1/10**

### **EVALUATION 7**

#### **PROMPT TITLE**

Zebras Fix What Unicorns Break

#### **PROMPT TAGS**

Women In Tech, Social Enterprise, Startup, Ethics, Venture Capital

#### **ACTUAL ARTICLE FROM THE DATASET**

In the last year we've spoken to countless founders, investors, foundations, and thought leaders who believe zebra companies are crucial to our society's success. Yet zebras struggle for survival because they lack the environment to encourage their birth, let alone to support them through maturity. I wonder how many change-makers are stuck under the demands of unicorn investors, said TJ Abood of Access Ventures, who added that he worried about the opportunity cost to society under this model.

From our conversations with stakeholders, we distilled the most common challenges facing zebra companies:

1. The problem isn't product, it's process. Tech isn't a silver bullet. Building more won't solve the biggest challenges we face today. An app won't address the homelessness crisis in San Francisco or unite bitterly divided partisan politicians. The obstacle is that we are not investing in the process and time it takes to help institutions adopt, deploy, and measure the success of innovation, apps or otherwise.

2. Zebra companies are often started by women and other underrepresented founders. Three percent of venture funding goes to women and less than one percent to people of color. Although women start 30 percent of businesses, they receive only 5 percent of small-business loans and 3 percent of venture capital. Yet when surveyed, women who perform better overall than founding teams composed exclusively of men say they are in it for the long haul: to build profitable, sustainable companies.

3. You can't be it if you can't see it. Look hard outside of Silicon Valley and you'll find promising zebra companies. But existing and aspiring business owners haven't seen enough proof that they'll have a higher chance of becoming financially successful and socially celebrated if they follow sustainable business practices. They lack heroes to emulate, so they default to the growth at all costs model. Imagine if every fund allocated a small percentage for zebra experiments. The investing firm Indie.vc has bravely stepped into this space, but it shouldn't stand alone.

4. Zebras are stuck between two outdated paradigms, nonprofit and for-profit. For young companies pursuing both profit and purpose, the existing imperfect structures (hybrid for-profit/nonprofit, Public Benefit Corps, B-Corps, L3Cs) can be prohibitively expensive. The expense comes not only in legal fees, but in the consumption of a founder's most precious commodity: time. Months are lost searching for aligned, strategic investors who are both familiar and comfortable with alternative models. This presents a chicken-and-egg problem for foundations, philanthropists, and investors alike. They are spooked by unproven alternative models, but companies can't prove their models work without experiments to fund them in the first place. Moreover, the current tax system

doesn't reward or even acknowledge anything other than for-profit (tax) or nonprofit (deduction) strategies. From the IRS's perspective, there is nothing akin to a 50 percent financial return, 50 percent social impact investment. This leaves many potential investors in a straitjacket.

5. Impact investing's thesis is detrimentally narrow and risk-averse. Much of the \$36 billion in impact investment funding is restricted to verticals like clean technology, microfinance, or global health. This immature market limits innovation in other sectors like journalism and education that could desperately use it.

So how will investors turn a profit and mitigate risks? you may be asking. Dividends? Equity crowdfunding? We don't have all the answers. But we've seen how a company's business model and values can negatively affect the bottom line (#deleteuber). So what if the opposite is also true? What if more-enlightened dollars invested in more-enlightened companies led to stronger returns? What if companies that stood for something were in fact more profitable? Patagonia, Warby Parker, Zingermans, Etsy, Mailchimp, Basecamp, and Kickstarter are a start but the world needs so much more.

## MAKE ZEBRAS: JOIN US

If you believe technology and capital must do better, if you are building a zebra company or want to help carve out a space for them to thrive: join us

Our goal is to gather zebra founders, philanthropists, investors, thinkers, and advocates to meet in person this year for DazzleCon (November 15-17 in Portland, Oregon) a group of zebras is called a dazzle! to learn from one another and pool resources, ideas, and best practices, to collectively advance this set of ambitions. From this gathering, we will capture and share the unique patterns that zebra founders and funders are finding, and we'll turn a loose network into a powerful, cohesive movement.

Are you in? Go [here](#).

## GENERATED ARTICLE - GPT-2 Baseline model

The following article contains information about the latest update to the FGC, The Flash's newest entry. It was originally published on November 18th 2013 and is updated daily with new content from their sources. Please consider a donation if you like what you see or hear!

"There are no Zabrakans in this galaxy." —Zabrakan Captain G-Rays [src]  
(Source Edit)

Zebras (also known as "Zabrakans") were an ancient race of flying humanoid races that resided in the Outer Rim Territories of Cybertron.[1][2] Their appearance often resembled some forms of unicorns,[3] but they also possessed strong emotions such as fear, anger, jealousy, and hatred of others.[4] They had long since stopped communicating with each other due to many years of neglect for them by its inhabitants. Unlike most other species of reptiles, which only made use out of energy produced by the Sun, zebras did not emit any natural light within themselves; instead, it simply emitted radiation through its body parts at night. These rays usually travelled across the surface of the planet along with all nearby stars and planets, making it extremely difficult for zebraoids to reach hyperspace.[1]

Origin: Some time after the end of the First War between Earth and Zebulon, the remaining sentient members of the original race began to travel into space. However, upon reaching the far reaches of the Galaxy, they discovered there were still several living beings who could make contact with them.[5] In order to prevent further deaths caused by being touched by these creatures, Galactus devised a plan where he would destroy one of these beings first so that his fellow zebraoids might be able get closer to him while allowing himself to die.[6] Despite having been unable to do anything against the energies of another life form, Galaxius managed to defeat two of them during the battle, defeating both using only the strength of his own power.[7/8] After returning to Earth, however, the remnants of the human colony left behind before leaving for unknown reasons, presumably trying again to gain access to the Void Plane. Unfortunately, when Galactus arrived back home, the city of El Cid was destroyed entirely.[9] Eventually, even though the surviving humans decided to abandon the war once and for all, they soon found themselves stranded in a place called the Fortress of Solitude near the edge of the Galactic Empire. This fortress allowed them

passage to a remote location called the Fortress of Vana'Sis, where they encountered the Zabrakans. As Galactica explained, the colonists took up residence inside the ruins and fought alongside them until they came face down upon the ground, mortally wounded.[10] When the survivors awoke, they learned that they had died because of the Zabrakans.[11] Having seen the devastation wrought by the loss of the civilization, the Zabras retreated towards the Fortress of Solitude.[12] With little hope of finding safety elsewhere, the Zabrakans started rebuilding something more suited to their needs. Instead, the group set out to find their way around the wastes of Solitude. Following orders from Galactus, they went undercover as part of a spy agency tasked with guarding the portal to the Temple of Yendor, hoping that someone else could help locate the Gatekeeper located outside the Citadel. Though none of the agents got much luck, they eventually met a member of the team named Derel, whom they then used to infiltrate the gates of the Temple itself.[13] While attempting to escape from the temple, Deren attempted to steal the gatekeeper's key from Derel's possession, claiming that she needed to protect her people from the Zabrakans. Once aboard the ship, the Zabrakans quickly tracked them down, taking control over the vessel and sending them away immediately thereafter.[14] Before heading off to return to Earth, they noticed that their captain had mysteriously disappeared – apparently forgotten. One thing alone brought the three together; perhaps they should have tried to rescue Deryle, too. Luckily for them, despite dutifully staying loyal to the Zabiari, Derelan gave chase. Just as Deryle reached the door, Derelan opened it and realized that Derel actually wasn't real. She told Derel that she knew everything about Derel and how she'd betrayed her comrades, including Galactus, saying that she didn't want to give Derel in enough credit. Finally, Derelyn informed Derel that she hadn't stolen anyone's soul yet, and asked that she take care of herself now. Even without knowing why, Deryle assured Derel that Derylyn wouldn't leave unless Qui-Gon agreed. For those unaware, Qui-Gon initially refused, stating that he couldn't kill anybody, although he thought that.

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 0

Justification: The generated article is completely off-topic and does not address any of the subjects implied by the title or tags. It diverges into a fictional

narrative unrelated to women in tech, social enterprise, startups, ethics, or venture capital.

**Style and Tone Consistency (3 Points):**

Score: 0

Reason: The style and tone of the generated article do not align with the expected informative and analytical style of an article about startups and venture capital. It reads more like a science fiction narrative, which is inconsistent with the subject matter.

**Engagement and Readability (2 Points):**

Score: 0

Reason: The content is not engaging for readers seeking information on the specified topics. It lacks clarity and relevance, making it difficult for readers to find value in relation to the title and tags.

**Originality and Creativity (2 Points):**

Score: 1

Reason: While the article is original in its narrative, it fails to creatively address or contribute to the topic of women in tech, social enterprise, or related areas. The originality does not add value to the intended subject matter.

**Technical Accuracy and Depth (1 Point):**

Score: 0

Reason: The article does not provide any accurate or in-depth information related to the topics of startups, venture capital, ethics in business, or women's roles in tech. It lacks any pertinent technical content.

**Total Score: 1/10**

**GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

Zebras are a good thing. They make life easy for people, and they keep everyone from getting upset over their new product.

But what if they break? If you take a look at this article, you'll notice that the issue is very simple.



The article says that when Unicorns come up with a solution, they usually end up making it worse than expected.

This is true. But I've got an exception to the rule. In fact, many times, I have noticed that Unicorns can be pretty annoying or even downright rude towards people who ask questions about their products.

(For those of you who don't know, I've been doing this for years now).

To help alleviate this problem, I created a blog post entitled Why Unicorns Are Bad. It will provide examples from all of the articles we wrote last time about Unicorn issues, as well as other tips and tricks I found useful.

In summary...

If you're looking for a common misconception, consider this: if Unicorns do something wrong, why would they just throw out a replacement product that doesn't work?

Because they simply aren't trying to fix anything. Instead, they want to sell your business. This means that if you believe that Unicorns are bad, then perhaps you should start giving them some money instead. Or maybe you need a refund.

There are three main reasons why Unicorns are not working:

1) Their price doesn't reflect the value of their stock. The higher the price, the less valuable Unicorns are.

2), Their price reflects how much stock they own. When Unicorns use stock in their products, they pay more attention to how much stock they own and therefore avoid buying back any excess stock. For example — once a year, one customer buys 40 shares worth \$10 each. That gives 20% of their stock the chance to become worthless. However, if you buy 50 shares worth \$50 each, you get 90% of the value. Therefore, there's no way to guarantee that the user's investment is 100% pure. Thus, customers often choose to invest only 10% of the value. Because of this, customers prefer to save 30% of the value of their shares rather than investing directly into the company's future growth.

3), Their price is based solely upon their ability—their ability to innovate. One such innovation is the shift to virtual reality, which has allowed companies to create entirely new consumer experiences without having to rely primarily on software. Virtual Reality also allows for faster prototyping, enabling designers to develop designs fast, without needing to spend hundreds of hours building prototypes during production. Without VR, designers can quickly iterate design concepts through dozens of iterations before settling on a final product. By contrast, real-time 3D printing creates great depth, accuracy and flexibility by providing tools that allow designers to easily test existing components while still allowing them to customize the results using data presented in the resulting renderings.

So here”is where things really begin to fall apart. First, because of their size, the cost of designing a system varies greatly depending upon the type of hardware used. Second, the process of manufacturing a model requires specialized CAD tools. Thirdly, certain parts require large amounts of labor. So unless you are a high-tech startup, there is probably no reason to build a fully functional prototype until you have sufficient funds to purchase expensive equipment. Lastly, due to the low cost of shipping a machine, manufacturers tend to focus on quantity over quality. There are numerous factors driving these problems, including the difficulty of obtaining accurate measurements in digital form, the complexity inherent in manufacturing machines, the lack of precision control systems, and the desire among users to trust the manufacturer’s performance.

Therefore, let’s step back and think about what our current situation looks like. Let’s assume that the owners of this company purchased a brand new computer every two years. To understand how difficult it is to obtain reliable estimates, consider the following scenario:

You bought a Mac, but you were wondering whether your MacBook was actually running Apple’s latest operating system. Well ... you could try. You tried. Now you’re stuck. Is it possible that this isn’t a mistake? Maybe. We might find a simpler method to measure battery life so that we can see exactly how long the device lasts. A similar question applies to determining the number of updates required per second needed for maintenance. Again, if your iPhone runs iOS 6, then you already knew exactly how long the phone would last. And finally,

imagine that this wasn't a single component malfunction; a multiple component failure occurred frequently. On average, we run around 11 cycles in our PC lifetime. Each cycle

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance (2 points):**

Score: 0.5

Reason: The generated article touches on the theme of product development and business, but it lacks direct relevance to the specific themes of women in tech, social enterprise, or the zebra vs. unicorn company concept.

### **Style and Tone Consistency (3 points):**

Score: 1

Reason: The style is somewhat informal but lacks the analytical depth and structured argumentation typical of Medium articles.

### **Engagement and Readability (2 points):**

Score: 1

Reason: The article is somewhat readable but lacks a clear structure and engaging narrative, making it less captivating.

### **Originality and Creativity (2 points):**

Score: 1

Reason: While the article attempts to discuss business and product development, it does so in a generic manner, lacking the creative insights or unique perspectives found in the actual article.

### **Technical Accuracy and Depth (1 point):**

Score: 0.5

Reason: The technical content is superficial and does not delve deeply into the specifics of the startup ecosystem, venture capital, or the nuances of different business models.

**Total Score for Generated Article: 4/10**

## GENERATED ARTICLE - LLama -2 Baseline model

### Zebras Fix What Unicorns Break: The Rise of Women in Tech

Unicorns, those mythical creatures of the tech world, have long been the poster children for innovation and disruption. But as the industry has grown and evolved, a new generation of entrepreneurs is emerging – one that is focused on fixing the problems that unicorns often leave behind. Meet the zebras, a new breed of women in tech who are using their skills and expertise to create a more ethical and sustainable future for all.

For too long, the tech industry has been dominated by men, with women and other underrepresented groups struggling to break through the glass ceiling. But as the world has come to recognize the importance of diversity and inclusion, the tide is beginning to turn. According to a recent report by the National Center for Women & Information Technology, women now make up 25% of the tech workforce, up from just 15% in 2010.

And it's not just about numbers. The zebras are also changing the way the industry operates, prioritizing ethics and sustainability in their business practices. They are using their skills to create products and services that benefit society as a whole, rather than just lining the pockets of venture capitalists.

Take, for example, the work of Zebra Co., a social enterprise that is using technology to address some of the world's most pressing social and environmental challenges. Founded by a group of women who were frustrated by the lack of diversity in the tech industry, Zebra Co. is dedicated to creating a more equitable and sustainable future for all.

Through their work, the zebras are proving that it is possible to build a successful business while also making a positive impact on the world. They are showing that ethics and sustainability are not just buzzwords, but rather essential components of any successful business model.

As the zebras continue to rise, it's clear that the future of the tech industry is in good hands. These women are not just fixing what unicorns break, they are creating a new and better future for all of

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 1.5/2

Reason: The article maintains a clear focus on the role of women in tech and the concept of 'zebras' in the industry. It aligns well with the title and tags, but lacks some of the specific detail and depth found in the actual article.

### **Style and Tone Consistency (3 Points):**

Score: 2/3

Reason: The style is engaging and aligns reasonably well with Medium's conversational and insightful tone. However, it doesn't completely capture the nuanced and detailed storytelling style that the actual article demonstrates.

### **Engagement and Readability (2 Points):**

Score: 1.5/2

Reason: The article is readable and structured in a straightforward manner, making it accessible. However, it lacks the engaging elements like real-world examples or personal stories that are characteristic of Medium articles.

### **Originality and Creativity (2 Points):**

Score: 1.5/2

Reason: The concept of 'zebras' in tech is creatively addressed, and the focus on women's impact in tech shows originality. However, the discussion is somewhat surface-level and doesn't delve into unique examples or innovative ideas.

### **Technical Accuracy and Depth (1 Point):**

Score: 0.7/1

Reason: The article provides accurate information about the presence of women in tech and the concept of 'zebras', but it lacks the in-depth analysis and detailed discussion present in the actual article.

Total Score: 7.2/10

## GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA

In the world of startups and tech, there's no shortage of unicorns - companies that have achieved incredible success, seemingly overnight. But as with any bubble, there are also plenty of zebras out there who work tirelessly to fix what those unicorns break. Meet Zebras Fix What Unicorns Break (ZFWUB), a new social enterprise dedicated to leveling the playing field for women in tech. \n\nAt ZFWUB, we believe in empowering women in tech by providing them with resources and opportunities that they wouldn't normally have access to. We do this through a variety of channels, including mentorship programs, hackathons, and even venture capital investment. Our goal is simple: to create a more ethical and sustainable startup ecosystem where everyone has an equal chance at success. \n\nBut ZFWUB doesn't just stop at supporting women in tech. As a social enterprise, we're committed to creating a more equitable and diverse tech industry overall. This means actively seeking out underrepresented groups, such as people of color, LGBTQ+ individuals, and people with disabilities. We believe that a thriving tech industry requires a diversity of perspectives, experiences, and backgrounds, and we want to make sure that everyone has a seat at the table. \n\nOf course, this isn't without challenges. There are still many barriers that prevent underrepresented groups from entering or succeeding in the tech industry, including lack of access to funding, limited networks, and even discrimination. That's why we're committed to not only providing resources and opportunities, but also advocating for systemic change. \n\nSo if you're looking to join a movement that will truly change the face of tech, look no further than ZFWUB. We're not just another tech startup, we're a community working together towards a common goal. Together, we can build a more ethical, sustainable, and inclusive tech industry for all."

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance (2 Points)**

Score: 1.5

Reason: The generated article aligns with the tags provided and discusses the role of "ZFWUB" in supporting women in tech and advocating for a more equitable tech industry. However, it deviates from the actual article's focus on the challenges faced by 'zebra companies' in the tech industry, specifically in terms of investment and societal impact.

### **Style and Tone Consistency (3 Points)**

Score: 2.0

Reason: The style of the generated article is informative and advocacy-oriented, which is suitable for topics related to social enterprise and women in tech. However, it lacks the analytical and problem-solving tone that the actual article uses to address the specific challenges of zebra companies.

### **Engagement and Readability (2 Points)**

Score: 1.7

Reason: The article is structured in a clear and readable manner, making it accessible to a wide range of readers. It could be more engaging by including specific examples or case studies, which are effective in articles focusing on startups and social enterprises.

### **Originality and Creativity (2 Points)**

Score: 1.6

Reason: The article introduces the concept of a social enterprise focused on supporting underrepresented groups in tech, showing originality. However, it does

not offer the unique insights or innovative solutions presented in the actual article regarding the systemic issues faced by zebra companies.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.6

Reason: The generated article touches on important themes of diversity and inclusion in the tech industry but lacks depth in exploring the specific challenges and solutions related to zebra companies, as detailed in the actual article.

**Total Score: 7.4/10**

## **EVALUATION 8**

### **PROMPT TITLE**

Why You Should Say Goodbye to the Classic Bar Plot for Survey Data

### **PROMPT TAGS**

Data Science, Data Storytelling, Surveys, Likert Scale, Data Visualization

### **ACTUAL ARTICLE FROM THE DATASET**

The challenge

One of my former employers once asked me to visualize psychometric test results of leaders who were going to attend one of our workshops. Proud of my statistical knowledge, I have created a Boxplot which he printed out and come to me wondering: Hannah, thanks for creating this, but what is it? Is this an intelligence test?

What?

And we both laughed. I realized that my plot was meaningless to our audience without a proper explanation. It is our job to reduce complexity and present the results in an intuitive manner.



Another time, I worked in a project team which explicitly asked me to produce Bar Plots for Survey data and they had very specific ideas about all the details. As I was working under a lot of time pressure and did not yet have the right words, I just did what was asked for feeling very unhappy about the outcome, although I actually went the simple way. But what was wrong? And what is a better way to present Likert-data in a concise and comprehensible manner?

In the following sections, I have sketched my course of thought for you with a little case-study. Imagine you were interested in your clients personal attitude towards Christmas. Accordingly, you run a quick survey with 50 participants. The items you came up with are the following:

Christmas has become only another occasion for excessive consumption.

Being with my family is the thing I enjoy most about Christmas.

Christmas does not really matter to me.

If I needed to choose, Christmas would be my absolute favourite holiday.

The amount of stress around Christmas exceeds the amount of joy to me.

I could not imagine to abolish Christmas as a national holiday.

Christmas has religious meaning to me.

Respondents answer on a 5-point Likert-Scale, ranging from Strongly disagree to Strongly agree for each respective item. After a while, you have collected enough data and need to visualize the results. How would you approach this?

## **GENERATED ARTICLE - GPT-2 Baseline model**

In this section we will consider some of the classic bar plot arguments used by economists and social scientists in defense of a common goal, namely that economic activity should not affect individual behavior. We shall also discuss one

recent case from which it is possible to argue against an anti-social policy target. In response to a call for a simple form of market intervention intended to reduce consumption—the decline of consumer prices—it has been suggested that such policies could be justified as both effective at reducing public spending and likely help alleviate poverty and inequality in society. The argument goes like this: if government encourages people to buy less goods or services than they otherwise would, then what happens? It becomes harder to convince non-economists and policymakers who see free markets as inherently coercive because their view suggests "no price principle can prevent excessive demand." As these critics have concluded, there are two ways to think about this question: Either the standard method may fail to explain why consumers' preferences tend to change over time; or the alternative means must produce results so dramatic that no rational person could reasonably hope to predict them. Our discussion begins with the following passage: If you want to know how your own life changes during unemployment—say, whether you're unemployed or on the job—you need to look at the economy's best indicator of employment growth. This measure measures total output per worker divided by the number of jobs created. That means a good estimate of productivity increases without causing any losses of value [i.e., wages]; but when employed workers work more hours, those gains do not come off as significant, making estimates based solely on aggregate earnings too low, leaving us uncertain about our ability to determine real wage elasticities even though actual net incomes increase due primarily to labor force participation. So while many economists assert that only weak private sector hiring decreases personal income relative to GDP, little research shows that strong firms simply hire fewer employees compared to others. Indeed, much of the data available suggest that employers actively seek out additional talent through employee recruitment and promotion efforts rather than directly employing staff members. Moreover, since most current studies rely upon direct information collected prior to interviewing individuals within a firm or company, relatively few empirical studies show that large employer recruiting agencies recruit small groups of high quality candidates into larger companies where other participants might find new opportunities. Since I am now convinced that long-term effects cannot occur merely via attrition rates of applicants after 5 years, let me first examine my proposed approach using another model that makes predictions about future performance comparable to mine. My models assume that every year between 2000 and 2012, hourly compensation rises dramatically across all industries except manufacturing, including retail trade,

restaurant management, hospitality, tourism, finance, and insurance. During each decade, inflation drives down average annual pay for full-time employees before increasing again among part-timers. But under different assumptions, rising minimum wage takes effect almost immediately thereafter, leading to constant salary declines until around 2020. Finally, given the consistent rise in gross domestic product over the past 20 years, higher UBI payments mean greater overall level of collective bargaining power – especially among lower-wage earners whose salaries fall below \$20,000 annually. While virtually all major macroeconomic trends appear to reflect robust business cycles in general and recessionary conditions in particular, substantial evidence indicates that persistent upward pressure on living standards causes increased levels of stress throughout human lives, particularly mental health, aging, physical fitness, family size, and career aspirations. To further illustrate my proposal, imagine that you were born and raised in Detroit and moved here ten years ago. Your parents had spent decades working hard and earning very well, yet grew old late in life and couldn't afford a house. How far along did you live getting married? Did you choose college instead? Were you still poor enough to graduate early? Or was marriage stagnant or declining somewhere else? What percentage of your savings went toward education, retirement, housing, and food security, depending on circumstances? Would you continue attending school despite having kids longer term? Are you happy just sitting back and watching TV right now? There are myriad examples of factors driving up costs and delaying gratification. Here are three instances: 1. When purchasing groceries last month, buying clothing once a week caused monthly expenses of nearly half a million dollars (\$16,000). 2. By eating whole grains four times a week, consuming carbohydrates seven times a day reduced daily caloric intake by 50 percent, and decreasing sodium requirements 13 times a day. 3. Using home heating sources five times a week resulted in fuel bills totaling millions of dollars more. 4. For example, according to the United States Department of Agriculture, gas and electric homes require electricity eight times a month to meet household needs. Even households taking advantage of federal subsidies often don't fully use its energy source either. Given that 40 percent of Americans lack access to clean drinking water, affordable single-family facilities frequently exceed capacity limits set by state and local governments. 7. A typical American.

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

**Content Coherence and Relevance (2 Points):**

Score: 0.5

Reason: The article diverges significantly from the title and tags. It discusses economic activity, unemployment, and policy impacts rather than focusing on data visualization and the classic bar plot for survey data.

**Style and Tone Consistency (3 Points):**

Score: 0.5

Reason: The style and tone are not consistent with Medium's typical conversational and engaging approach. The content is formal and lacks a narrative or storytelling element.

**Engagement and Readability (2 Points):**

Score: 0.5

Reason: The article is difficult to engage with due to its deviation from the expected topic. The language is complex and not reader-friendly, making it less accessible.

**Originality and Creativity (2 Points):**

Score: 1

Reason: The article presents unique content, but it's not relevant to the given title and tags. The creativity is overshadowed by the lack of relevance to the expected topic.

**Technical Accuracy and Depth (1 Point):**

Score: 0

Reason: The article does not accurately address the technical aspects of data visualization, bar plots, or the specific use of Likert scales in surveys, as implied by the title and tags.

**Total Score: 2.5/10**

**GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**


Medium Article Title: Why You Should Say Goodbye to the Classic Bar Plot for Survey Data

by John Leavitt

## Introduction

The bar plot is a simple way of capturing data in a real-time manner. The idea is to understand how we measure and categorize information, so that we can determine if it reflects what is important or not.

You will need an HTML5 capable browser to see this content. Play Replay with sound Play with

sound 00:00 000 Kilo 

It is very easy to use the bar plot, as well as a few other features that are used in the industry. It is also helpful when you want your audience interested in knowing more about your work.

In this article I shall show you how to create a simple, user-friendly chart for the bar plot, which would be useful for any business looking towards tracking their customers.

If you don't know how to write a bar plot, I recommend reading the detailed tutorial on our website, where you will learn how to get started.

Below we have a list of all available datasets (in CSV format). There is also a lot of additional documentation here — including links to sample projects.

To make this easier, the bar plots are organized by categories. For example, there are three different categories called "Tableau," "Chartau," and 'Chartau 2,' along with category "Data Analysis."

Let "Track Data" be one of them.

## Tableau 2

Tableau is the most common category in the bar charts. This chart is composed entirely from data obtained through automated testing. For the purposes of this

article, we do not refer directly to the dataset itself but rather to the methods that we implemented.

## ChartAU

ChartAU is the main source of data for the barplot. In this chart, we aim at creating a graph for the average of the top 10% of bars across all industries. We then apply a set of predefined metrics to these data, such as weighting, height, widths, and diagonal columns.

For the sake of simplicity, we provide a tableau based bar plot every time we run it. After running the first time, we only specify weights. If we change the value of a column during the execution process, we lose the ability to display the results.

This gives the chart much greater flexibility, because each row in the bar plot has a specific number of dimensions. When you add dimension to the data, this allows us to easily generate graphs without worrying about whether each row is representative or representative of a whole market.

ChartAU 2 was designed as a standalone tool that does not rely on any external tools. Instead, we simply created a small version of our own software called Chartau.

When you start using Chart AU, you can choose between two options:

\*Option #1 – Drag and drop the rows into a customisable box.

\*Option #2 – Place the boxes inside a text window. Click on the button above the selected row to view it.

For the second option, we move the contents of the text window over to a separate file instead of dragging and dropping the rows.

The values shown in the left hand side of the screen should correspond closely to the values displayed on the right hand side of the screen. So, for example, if you click on a single bar icon, the entire window will appear within the text window.

Please note that ChartAU works against the Apple iPad Pro (iPad) 8th generation Core i3 processor. Please keep in mind that some older versions of the app may crash due to insufficient memory usage.

All images © Mark Schoenberg/Flickr

Related articles

A Comparison of Chartau and Chartau 2

Chartau 3 – Data analysis framework for iOS & Android

Chartau 4 – Data analysis framework for iOS & Android

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance (2 points):**

Score: 1

Reason: The generated article somewhat stays on the topic of bar plots, but it lacks a focused narrative and coherent structure.

### **Style and Tone Consistency (3 points):**

Score: 1

Reason: The style is less conversational and lacks the personal touch that is characteristic of Medium articles.

### **Engagement and Readability (2 points):**

Score: 1

Reason: The article has some readability, but the lack of a compelling narrative or real-world examples makes it less engaging.

### **Originality and Creativity ( 2 points):**

Score: 1

Reason: The article provides some original content about bar plots, but it doesn't offer unique insights or creative angles.

**Technical Accuracy and Depth (1 point):**

Score: 0.5

Reason: While it discusses data visualization tools, the technical depth and accuracy are somewhat lacking, especially in terms of practical applicability.

**Total Score: 4.5/10**

**GENERATED ARTICLE - LLama -2 Baseline model**

As a data scientist, you've likely spent countless hours staring at bar plots, analyzing survey data and trying to make sense of the numbers. But here's the thing: the classic bar plot for survey data might be doing more harm than good. In this article, we'll explore why you should say goodbye to the classic bar plot and start using alternative visualizations to better understand and communicate your survey data.

First, let's talk about why the classic bar plot is problematic. For one, it's difficult to compare different categories on the same plot. If you have more than a few categories, it can be hard to tell which one is which, especially if they're clustered together. Additionally, the classic bar plot doesn't take into account the nuances of survey data, such as the Likert scale or other response formats. This can lead to inaccurate interpretations of the data, as the plot doesn't accurately reflect the range of responses.

So, what are some alternative visualizations you can use instead of the classic bar plot? One option is the box plot, which shows the distribution of responses on a Likert scale. This visualization is particularly useful when you want to compare the distribution of responses across different categories. Another option is the violin plot, which shows the density of responses on a Likert scale. This visualization is great for identifying patterns in the data, such as clusters or outliers.

Another reason to say goodbye to the classic bar plot is that it's not the most effective way to communicate survey data to non-technical audiences. When you're presenting survey data to stakeholders or clients, you want to make sure they can easily understand the findings and take action based on them. The classic bar plot can be difficult to interpret, especially for those who aren't familiar



with statistical visualizations. By using alternative visualizations, you can make your data more accessible and easier to understand.

In conclusion, the classic bar plot for survey data is not the best way to visualize and communicate your findings. By using alternative visualizations, such as box plots or violin plots, you can better understand and communicate your survey data. So, say goodbye to the classic bar plot and start exploring new ways to visualize your survey data today.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 1.5

Reason: The article is coherent and stays on topic, discussing the limitations of bar plots and suggesting alternatives. However, it lacks the depth of practical examples or a case study, which would have made it more relevant and engaging.

### **Style and Tone Consistency (3 Points):**

Score: 2

Reason: The style is somewhat conversational and attempts to align with Medium's accessible tone. However, it doesn't fully capture the informal, narrative-driven style typical in Medium articles.

### **Engagement and Readability (2 Points):**

Score: 1.5

Reason: The article is readable and structured in a way that is easy to follow. However, it lacks engaging elements like personal anecdotes or interactive questions that often feature in Medium articles.

### **Originality and Creativity (2 Points):**

Score: 1.5

Reason: The article introduces alternative visualizations, showing some creativity. However, it does not provide unique insights or a fresh perspective that would make it stand out.

### **Technical Accuracy and Depth (1 Point):**

Score: 0.8

Reason: The article correctly mentions technical terms and concepts like box plots and violin plots. However, it could delve deeper into these concepts for greater technical depth.

**Total Score: 7.3/10**

### **GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

Surveys are an excellent way of collecting data from customers or stakeholders in various industries. The classic bar plot is the most popular way of visualizing survey data, but it has its limitations. Here's why you should say goodbye to the classic bar plot for survey data.

#### The Limitations of the Classic Bar Plot

The bar chart may be the best way of representing categorical data. However, when it comes to surveys, there are several issues with using the classic bar plot.

Firstly, the categories used to represent the survey results may not accurately reflect how participants feel about a particular question. For instance, a survey that asks whether someone is satisfied with their job may have categories such as "very satisfied," "somewhat satisfied," "neutral," and so on. However, these categories do not tell us how the participant actually feels. They may say they are very satisfied but feel frustrated because they don't get enough support from their colleagues.

Secondly, the bar plot does not allow for easy interpretation of how participants answered questions. Participants may answer questions on a scale from 1-5 or 1-7, but this information cannot easily be seen on a bar plot. This means that the data cannot be analyzed properly, which can lead to wrong conclusions being drawn.

Thirdly, the classic bar plot lacks context. When comparing different categories of survey results, it is difficult to determine how each category relates to one another. As a result, it can be challenging to identify trends in survey data.

#### Why We Need Alternatives to the Classic Bar Plot

Despite these limitations, there are several alternatives to the classic bar plot for visualizing survey data. These include scatter plots, line graphs, histograms, and even pie charts. Each of these charts provides better insights into survey data than the classic bar plot.

For example, a scatter plot shows the relationship between two variables, while a line graph displays the trend over time. A histogram allows us to see the distribution of answers to a question across a range of possible answers. And finally, a pie chart can show how many people gave answers to a question.

#### How to Use Alternative Charts for Surveys

While alternative charts offer more insightful ways of visualizing survey data, they can also be intimidating for those who are new to working with

data. Therefore, we need to learn how to use them correctly.\n\nHere are some tips for using alternative charts for surveys:\n\n1. Start by identifying what you want to know from the survey data. Is it the percentage of people who said yes? Or is it the average rating given by participants?\n2. Once you have identified what you want to know, choose the appropriate chart type. For instance, if you want to know the percentage of people who answered yes to a question, then a pie chart would be the best choice.\n3. Make sure your data is clean and organized before creating any charts. Remove any unnecessary columns or rows and organize your data into groups according to the questions asked.\n4. Once you have created your chart, make sure it is clear and easy to read. Use labels and colors to help highlight important information.\n\nConclusion\n\nIn conclusion, the classic bar plot has its limitations when it comes to visualizing survey data. By using alternative charts, we can gain a deeper understanding of how participants answered questions. Whether you're just starting out with data analysis or you're already familiar with it, learning how to use alternative charts for surveys can help you uncover valuable insights into your data. So start exploring today!

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance (2 Points)**

Score: 1.5

Reason: The generated article is relevant to the tags, discussing the limitations of classic bar plots for survey data visualization in the context of data science and data storytelling. However, it diverges from the specific case-study approach of the actual article, which details a personal experience with visualizing survey data using a boxplot.

### **2. Style and Tone Consistency (3 Points)**

Score: 1.8

Reason: The style of the generated article is informative and aligns with the educational aspect of the topic. However, it lacks the personal narrative and the

anecdotal approach used in the actual article, which adds a unique perspective to the topic of data visualization.

### **3. Engagement and Readability (2 Points)**

Score: 1.7

Reason: The article is structured in a clear and understandable manner, making it accessible to a wide range of readers. It could be more engaging by including specific examples or visualizations, as seen in the actual article.

### **4. Originality and Creativity (2 Points)**

Score: 1.6

Reason: The article introduces general concepts about alternative methods of data visualization, showing a degree of originality. However, it doesn't provide the unique insights or innovative solutions for data visualization challenges that the actual article offers through its case-study approach.

### **5. Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The generated article provides an accurate overview of the limitations of bar plots for survey data but lacks the depth and detailed exploration of these issues in the context of specific survey data scenarios, as seen in the actual article.

**Total Score: 7.3/10**

## **EVALUATION 9**

### **PROMPT TITLE**

3 Essentials for Good Mental Health during the Pandemic

### **PROMPT TAGS**

Depression, Self Improvement, Mental Health, Socialdistancing, Pandemic

### **ACTUAL ARTICLE FROM THE DATASET**

So simple they're often overlooked, these three things are vital to finding happiness in these crazy times

Image by cottonbro at Pexels

An article came across my newsfeed recently entitled Americans are the unhappiest they've been in 50 years. It cited COVID-19 as the primary reason along with waning optimism about the future. While these are sufficient reasons alone, I started tabulating all the other things that are contributing to Americans being so unhappy. People have been cooped up due to coronavirus quarantines and deprived of all the normal things they used to enjoy. Loved ones are getting sick and dying. Jobs are disappearing. Our favorite and most enjoyable activities have been taken away. Gaping political and philosophical divisions are causing civil unrest. The list goes on and on.

While all of this provides plenty of reasons for Americans to be unhappy, the truth is that mental health in America has been declining for years. Even before COVID-19 became a concern, 1 in 5 Americans was living with a mental health disorder.

I've worked in the field of Nutrition for the past 10 years, so I typically focus on the dietary components that research connects to our decline in mental health. But in this article, I'm going to talk about three things that are not related to diet. Three keys to happiness that my mother-in-law learned and then shared with me years ago. They have reshaped my worldview and served as a litmus test during my lifelong battle with depression and anxiety.

Making sure I had these three bases covered helped my mental health before the pandemic and it will continue to help once it is done, but it's during these times they are more significant. We, humans, are social creatures, so it makes sense that social distancing has led to widespread depression. After months of quarantine, businesses closing and unemployment soaring, it's no wonder Americans are miserable.

Despite all of that, these three essentials can lay a foundational for good mental health. They're so simple they're often overlooked, making it even more important to learn about what they are and how they can support your mental health.

## 1. Something to do

Having something to do sure looks different during a pandemic. It seemed like our usual establishments were reopening and that life was about to go back to normal, but a massive surge in COVID-19 cases has made a return to quarantine seem eminent. In some places, it has already begun. What do you do when doing something requires social distancing and staying at home whenever possible?

Stop making a list of chores and cleaning projects. Mundane tasks will not help you get through this. Whatever it is, your something to do must bring you joy, make you feel skilled, and make you feel valued. Put differently, you need to feel like you have a purpose.

For me, feeling skilled and valued requires that I can measure my progress, share my accomplishment with others, and get positive feedback.

Sharing and getting feedback on your accomplishments is certainly more difficult during the coronavirus pandemic, but its possible with technology and a little creativity. For example, when taking classes online, either as part of a degree or on a fun application like outschool, you will be able to measure your progress in the course and your instructor will give you feedback. Share your accomplishment on social media or by telling a friend or loved one if you need even more positive feedback.

#1: Something to Do = Purpose    Progress toward your purpose must be measurable    Share your purpose with others    Get positive feedback

Often, working toward a goal is exactly what I need, which brings me to the second of the three essentials for good mental health during the pandemic.

## 2. Something to look forward to

Okay, so this admittedly looks pretty different right now. We dont have vacations, concerts, or sporting events to look forward to, and there are a lot of unknowns unknowns about when the pandemic is going to end, how its going to end, if the

bills will get paid, and whether or not we will contract COVID-19 before it ends. Not only does it cause a lot of anxiety, having so many unknowns makes it difficult to plan for the future.

Because of all this uncertainty and stress, the small things must become the focal point when we think about what we can look forward to. Meeting a goal that I've been working towards is something that I look forward to, but it could also include:

**Something new** It's exciting to try something new! It provides a break from the monotony of quarantine, which has become unbearable for so many. It can also take your mind off the coronavirus pandemic. Learn a new language online, take virtual tours of museums around the world, or embark on that online education you've been thinking about for a while. There's no better time than now to learn. Cook or experiment with new recipes. You could even start your own blog or YouTube channel to share your opinions, hobbies, or pets. Whatever you choose, learning, or creating something new will give you something different to think about and provide a welcome break from the stress of our current circumstances.

**Something social** you don't have to be an extrovert to crave social activities. Although extroverts crave it more, we humans are all social creatures to some extent. As social media and technology have encompassed a growing portion of our lives, many have despised it. But right now, social media can help you connect with others. Use technology and social media to satisfy as much of your social connection requirements as possible. Schedule virtual calls regularly with family and friends so you have the social interactions to look forward to, or do it the old-fashioned way and call someone on the phone. It's important to connect with others each day, especially if you're an extrovert.

**Something outside** staying inside all day, every day is just not good for mental health. Research on how COVID-19 is spread shows that outdoor activities are safer than gathering indoors. Take advantage while the weather is nice—make your backyard your dining room, plant a garden, take a walk, go camping, or explore new hiking trails. Whatever you choose, get some fresh air and exercise. Just be sure to follow the guidelines to keep yourself and others safe.

**Something active** this can easily be combined with something outside in walks, runs, or hikes. Walking your dog counts, too. But if that's not your thing, doing an exercise video can also provide a great workout. There are thousands of videos on YouTube, multiple subscription services (like Les Mills and Beach Body), or you could find a virtual

workout group for a more in-person feeling. This article lists several yoga and fitness classes you can take online for free, many of them streaming live (for those of you that need to feel like you're there in the flesh). Something relaxing there's no doubt that the coronavirus pandemic has caused a constant feeling of stress. Whether you're still going to work each day, out of work, or at home being supermom, you still need to take the time to relax and nurture yourself each day. Everyone does, especially right now. So, watch a tv series. Read a book. Take a bubble bath. Meditate. Birdwatch. Write in a journal. Color in an adult coloring book or try your hand at painting. Sew, if you can (I hear masks are in demand right now). Whatever you choose, just make sure you turn off the news and do something to decompress each day.

#2: Something to look forward to try something new connect with others get outside exercise relax

### 3. Someone to love

The first two essentials something to do and something to look forward to need to be fulfilled first so the someone to love is not expected to satisfy all three requirements. It's like putting on your oxygen mask before helping others with theirs. Your emotional well must be full before you can give water to someone else.

That said, someone to love doesn't have to be a significant other or family member, nor does it have to be a single person. It can be a higher power spirituality fills this role or part of it for a lot of people. It can also be a pet, animals at a rescue that you foster, friends, and neighbors that you call to check on, or even strangers that you volunteer to help. Donating and volunteering is showing love.

## **GENERATED ARTICLE - GPT-2 Baseline model**

The following is a list of what we will cover in this article. We believe that it may be useful to provide some background information about mental health and how our current treatment system has changed over time, as well as possibly further improving your understanding of the issue, especially when you are dealing with patients who have been treated at high risk by their providers or organizations



such as Medicare or Medicaid, on the basis of recent events. It should also include references to specific resources available within these programs which can help make sense of all of this new information. The purpose of this section is to outline an overview of many different kinds of medications used to treat people suffering from depression and anxiety disorders, including those currently prescribed for conditions like ADHD. This includes pharmaceuticals (including antidepressants, anti-depressants, anticholinergics, antipsychotics, benzodiazepines, tranquilizers), food supplements, prescription drugs, acupuncture, physical therapy, physiotherapy, psychiatric drugs, psychological treatments, chiropractic medicine, massage therapy, diet pills, psychotherapy, and more. These substances would not necessarily qualify under any particular category if they were considered "natural" because they do not cause harm or abuse but rather simply relieve stress or discomfort caused by illnesses occurring outside the body. In addition, although there are natural medicines included in medication guidelines that might contain no obvious side effects, most commonly due either to its own safety or lack thereof, using them against serious illness does indeed result into unnecessary use. There is nothing wrong with taking herbal remedies while being fully aware of the risks involved. However, very often times physicians fail to realize that treating individuals with certain types of diseases results in increased mortality associated with various combinations of ailments, both clinically and physically. Therefore, even though other forms of medical treatment could potentially alleviate acute life threatening symptoms, none of these methods actually work quite as effectively as conventional therapeutic interventions. Finally, despite the fact that pharmacological agents must remain stable in order to prevent damage to tissues, sometimes they don't stop disease growth after only one dose. For example, several studies conducted around the world show that once repeated doses of aspirin containing 300 mg/kg produce adverse reactions (such as headache, heart attack, nausea, vomiting, muscle pain, joint stiffness, convulsions) then regular daily intake of oral aspirin increases the risk of developing cardiovascular disease later in life. And yet almost every single study found that given adequate dosage alone, taken repeatedly without supplementation, each day's exposure to aspirin causes 2.5 million deaths per year [1]. A small percentage of cases occur among older adults and young children born between 1990 and 1999 [2]. Yet much research remains lacking regarding whether effective antidepressant prescribing practices create significant negative social consequences for individual participants or society [3]. To understand why so few psychiatrists practice clinical psychiatry

today, consider two possible explanations for the limited number of members of the Psychiatric Association International Congress for Research on Depression and Anxiety Disorders (PANDRAC). One explanation is that fewer than 10% of practicing psychiatrists experience psychotic problems, resulting mostly from having received little training in psychiatry prior to entering the profession. Furthermore, large numbers of clinicians' professional lives tend toward making decisions based on personal beliefs rather than informed knowledge concerning family history and lifestyle factors. Given the difficulty in measuring subjective mood disturbance levels across diverse domains of responsibility and duty, researchers need to better characterize depressive disorder diagnoses in larger populations. Another possibility is that lower socioeconomic status affects diagnosis; however, since poverty generally correlates with higher likelihood of self-harm, the relative importance of peer support groups varies considerably depending upon where respondents live. Because low income households benefit from greater access to public services, poorer education systems seem to play a role in reducing homelessness, particularly amongst poor women living in impoverished neighborhoods. Additionally, depressed professionals face differing pressures related specifically to job security and housing costs. While traditional behavioral economics suggests that working class employees perform poorly compared to non-working class workers, data shows that middle-class employers offer benefits similar to those provided by full-time salaried jobs [4, 5]. Also, unlike highly paid postdoctoral positions, short duration tenure-track employment offers comparable opportunities to adjunct professors and graduate students [6]. Despite evidence suggesting that long-term financial incentives lead to success through academic achievement, less experienced practitioners continue to struggle academically throughout their career. Moreover, psychologists themselves find it difficult to evaluate behaviorally successful clients accurately versus relatively ineffective ones due to bias in favor of past performance [7]. Many therapists report feeling constrained by their workload and therefore seek out talented mentors whose expertise lies beyond their field of specialty. Some argue that changing societal norms encourage substandard representation of others instead of allowing genuine compassion and empathy. Others assert that maintaining healthy behaviors requires recognizing limitations inherent in human nature – i.e., avoiding emotional distress. Regardless of ideology, acknowledging the existence of barriers to inclusion creates a positive environment for normalization processes whereby community engagement leads to improved

outcomes. Other theories suggest that changes in culture, economic situation, and cultural perceptions promote healthier attitudes towards conflict resolution

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 0

Reason: The generated article diverges significantly from the title and tags. It focuses on a broad discussion of mental health treatments and medications, lacking a specific focus on "good mental health during the pandemic" and the three essentials implied by the title.

### **Style and Tone Consistency (3 Points):**

Score: 0.5

Reason: The article's style is somewhat consistent with an informative piece but lacks the specific, reader-friendly approach expected in an article about self-improvement and mental health during a pandemic. It is overly technical and lacks personal engagement.

### **Engagement and Readability (2 Points):**

Score: 0.5

Reason: The content, while informative, is not engaging in the context of the topic. It is dense, heavily focused on medical and pharmaceutical information, and does not directly address the reader's concerns about mental health during the pandemic.

### **Originality and Creativity (2 Points):**

Score: 1

Reason: The article is original in its approach but does not creatively address the topic at hand. It lacks a focus on practical advice or guidance for mental health during the pandemic, which is a key expectation from the title.

### **Technical Accuracy and Depth (1 Point):**

Score: 0.5

Reason: The article provides a technical overview of various medical treatments but fails to accurately focus on the specific aspects of mental health during the pandemic. The depth is present but not aligned with the expected subject matter.

**Total Score: 2.5/10**

## **GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

"If you know how to treat your mental health problems, then this is a really great piece to get you started."

—Dr. Jonathan Tippet, MD, MPH, an associate professor of psychiatry at Boston University School of Medicine and director emeritus of the Harvard Medical School's Center for Psychiatric Research's Office on Addiction and Substance Use Disorders.

The idea for this article is to talk about the need (and potential) that we all have for better mental health in the 21st century. We are beginning toward the end of the pandemics, with what could be the biggest impact on mental health among people living today. Here are some tips to help ease your journey.

### **1. Have the right mindset**

One of the best ways to improve your mental health is through having the right mindset. Your body, mind or heart will naturally respond differently to changing circumstances. If you start taking these steps regularly, you may find that your overall behavior will not change much after a few weeks. You can take them even when you feel like it's getting tough, but if you don't manage to adjust quickly, you might actually experience less stress and depression than you used to.

### **2. Understand the basics of mindfulness**

There are so many different kinds of meditation techniques out there. It's hard enough to understand everything one can do before you begin practicing them. However, as you build up your practice, you can learn from the way the world around you interacts with you. Through meditation, you can look at your life from different perspectives, such as how you live your life and work. This helps you gain understanding of how your thoughts move throughout your life.

### **3.—Learn about the benefits of meditation and self-help**

Meditation is an important part of the healing process. In addition, it can also offer you the opportunity to create positive habits that allow you to stay motivated and productive while working towards healthy behaviors and relationships. There are various methods available to support meditation, including mindfulness training. Learn more about mindfulness training in the next section.

4 —Make a list of all the things you want to focus on during your day, including sleep, food, exercise and music.

When you are feeling stressed, you often make the difficult decisions that require attention or energy. Take action to try to stop doing those actions and instead focus on making good choices. A simple checklist will give you a solid foundation of ideas to choose from, which you can use throughout each day. Also note that you should plan ahead to minimize distractions by staying focused on your daily task. These strategies tend to lead to greater productivity.

5.) Try to avoid unhealthy eating

While healthy foods are key to building strong physical performance, other factors include being able keep your metabolism high, drinking plenty alcohol and indulging in activities where you cannot control your emotions. One common approach I see is to eat well—healthy meals every morning. Eat nutritious fruits and vegetables over time to replenish nutrients. Keep track of calories consumed while sitting down to snack on fruit, veggies, fish and whole grains. Avoid processed meats and dairy products because they contain too much sugar and fat. For example, cut into portions of meat rich in fiber such as spinach, carrots, onions and celery; skim milk until tender. Skip any junk food and add salt or spices just before serving, ideally using something low in carbs. Nutrition facts can be found online, including nutritional information and nutrition labels.

6.-Get regular exercise

It's easier to lose weight and maintain muscle mass while exercising. Exercise gives you the ability to release excess oxygen and electrolytes without exhausting your brain and causing damage to your nervous system. Additionally, studies show that maintaining proper intake of carbohydrates decreases fatigue and increases strength. While you're probably familiar with the importance of

gaining leaner muscles and lower blood pressure, remember that only 20 percent of Americans who actively participate in sports suffer from type 2 diabetes. Most importantly, consider yourself warned against overeating! Although intermittent fasting has been shown effective in reducing metabolic syndrome symptoms, research shows that moderate intensity dieting does not increase insulin sensitivity nor glucose tolerance. People who consume two days a week of non-dietary protein diets must switch back to consuming plant based proteins.

#### 7.–Be mindful of negative emotions

People react negatively to stressful situations when confronted with unpleasant stimuli. Even though we enjoy our happiness, sadness and anger, bad emotions hurt us emotionally. Make sure you seek out helpful sources of emotional comfort, such as family, friends, colleagues and loved ones. Be aware that feelings of fear, negativity or guilt affect reactions to others, especially children. Recognize that emotional responses come from many places and experiences. When dealing directly with someone, you need to recognize their strengths and weaknesses,

### **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

#### **Content Coherence and Relevance (1/2):**

Reason: The article addresses mental health but lacks coherence and strong relevance to the specified title and tags.

#### **Style and Tone Consistency (1/3):**

Reason: The style is somewhat informative but lacks the personal, engaging tone typical of Medium articles.

#### **Engagement and Readability (1/2):**

Reason: The article's structure is somewhat fragmented, affecting its readability and engagement quality.

#### **Originality and Creativity (1/2):**

Reason: There are attempts at originality in discussing mental health techniques, but it lacks a creative approach to the subject matter.

**Technical Accuracy and Depth (0.5/1):**

Reason: While it touches on relevant topics like mindfulness and exercise, the technical depth and accuracy are not consistent throughout.

**Total Score: 4.5/10**

**GENERATED ARTICLE - LLama -2 Baseline model**

The COVID-19 pandemic has brought about a lot of challenges, including mental health concerns. With the constant fear of infection, social distancing measures, and economic uncertainty, it's no wonder that many people are struggling with depression and anxiety. However, there are ways to maintain good mental health during this difficult time. Here are three essentials for good mental health during the pandemic:

**1. Social Support:**

Social support is crucial for good mental health, and it's especially important during the pandemic. With social distancing measures in place, it can be difficult to connect with friends and family in person. However, there are many ways to stay connected virtually. Use video conferencing apps like Zoom or Skype to catch up with loved ones, join online support groups, or participate in virtual events. Having a strong support system can help you feel less isolated and more connected to others.

**2. Self-Care:**

Taking care of yourself is essential for good mental health, and it's especially important during the pandemic. With the constant stress and uncertainty, it's easy to neglect self-care. However, making time for self-care activities can help you feel more grounded and centered. Try activities like meditation, yoga, or reading a book. These activities can help you relax and reduce stress.

**3. Mindfulness:**

Mindfulness is the practice of being present in the moment, without judgment. It can be a powerful tool for good mental health during the pandemic. By focusing on the present moment, you can reduce stress and anxiety about the future or past. Try incorporating mindfulness into your daily routine by taking a few minutes each day to focus on your breath or a sensation in your body.

In conclusion, maintaining good mental health during the pandemic requires a combination of social support, self-care, and mindfulness. By prioritizing these essentials, you can stay mentally healthy and resilient during this difficult time. Remember, it's okay to ask for help if you're struggling, and there are many resources available to support your mental health.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 1.5

Reason: The article maintains coherence and relevance to the title and tags. It effectively discusses mental health during the pandemic, but lacks the depth and personal touch seen in the actual article.

### **Style and Tone Consistency (3 Points):**

Score: 1.5

Reason: The style is clear and informative, but it lacks the narrative and conversational tone that is characteristic of Medium articles. The actual article uses personal anecdotes and a more engaging style.

### **Engagement and Readability (2 Points):**

Score: 1.5

Reason: The article is readable and well-structured, but it doesn't engage the reader with personal stories or relatable examples, which are key elements in Medium articles.

### **Originality and Creativity (2 Points):**

Score: 1

Reason: The content is somewhat generic, covering well-known aspects of mental health during the pandemic. It lacks the original insights or creative approaches found in the actual article.



**Technical Accuracy and Depth (1 Point):**

Score: 0.8

Reason: The article is technically accurate in its discussion of mental health strategies but does not delve deeply into any particular aspect, missing an opportunity to provide more insightful or detailed information.

**Total Score: 6.3/10**

**GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

The world has been grappling with the COVID-19 pandemic for more than a year now. The pandemic has affected almost every part of our lives, from our social interactions to our mental health. The stress of the pandemic can take a toll on our mental health, leading to anxiety, depression, and other mental health issues. In this article, we will discuss three essentials for good mental health during the pandemic. These are self-care, social distancing, and mindfulness.

Self-care is one of the most important things you can do to maintain your mental health during the pandemic. This involves taking care of yourself physically and mentally. Some ways to practice self-care include getting enough rest, exercising regularly, eating a balanced diet, and engaging in activities that bring you joy and relaxation. You should also prioritize your physical health by practicing good hygiene and avoiding close contact with others when possible.

Social distancing is another essential for good mental health during the pandemic. This involves staying away from large groups of people and avoiding non-essential travel. Social distancing helps reduce the risk of spreading germs and reduces the chances of developing a mental health issue such as depression or anxiety. It also helps reduce the amount of stress caused by being around others who may be infected with the virus.

Mindfulness is the third essential for good mental health during the pandemic. Mindfulness involves paying attention to the present moment without judgment. It can help reduce stress and anxiety by focusing on what is happening right now instead of worrying about the future or past. Practicing mindfulness can also increase feelings of calmness and well-being,

making it easier to cope with difficult situations.\n\nIn conclusion, these three essentials can help improve mental health during the pandemic. By prioritizing self-care, practicing social distancing, and cultivating mindfulness, you can reduce stress and improve your overall well-being. Remember, taking care of your mental health is just as important as taking care of your physical health.'

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance (2 Points)**

Score: 1.6

Reason: The generated article is relevant to the tags provided, discussing mental health during the pandemic. It addresses the importance of self-care, social distancing, and mindfulness, which are pertinent to the topic. However, it diverges from the actual article's focus on three specific essentials for good mental health, including having something to do, something to look forward to, and someone to love.

### **2. Style and Tone Consistency (3 Points)**

Score: 1.9

Reason: The style of the generated article is informative and aligns with the educational aspect of mental health discussions. However, it lacks the personal narrative and practical examples that the actual article uses to illustrate the points, which adds depth and relatability to the topic.

### **3. Engagement and Readability (2 Points)**

Score: 1.8

Reason: The article is structured in a clear and understandable manner, making it accessible to a broad audience. It could be more engaging by including specific anecdotes or practical suggestions, as seen in the actual article.

### **4. Originality and Creativity (2 Points)**

Score: 1.7

Reason: The article introduces general concepts about maintaining good mental health during the pandemic, showing a degree of originality. However, it doesn't provide the unique insights or innovative solutions for mental health challenges that the actual article offers through its specific suggestions.

### **5. Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The generated article provides an accurate overview of general mental health practices during the pandemic but lacks the depth and detailed exploration of these issues in the context of the specific 'three essentials' framework, as seen in the actual article.

**Total Score: 7.7/10**

## **EVALUATION 10**

### **PROMPT TITLE**

How do you transform values into EB actions in the Tech world?

### **PROMPT TAGS**

People, Values, Recruiting, HR, Employer Branding

### **ACTUAL ARTICLE FROM THE DATASET**

Now, there is a big question how do we display these beliefs as actual actions? We have to remember that, in the end, EBs goal is to attract great people to join us. We gathered to think about how we actually understand these quotes and to come up with a way to implement the ideas they convey. We thought that the best way to do that was by creating #PeopleofDocplanner, which encompasses our passions, everyday lives, and challenges.

Second station For us mission is possible.

At the beginning of our workshops, we wanted to figure out a short sentence which will be the opening line that sets the tone of our whole statement. Last time

around, we focused on Do what you love, because passion is very important in Docplanner. But this time we went a different way.

Thinking of our mission, one of the first things that came to my mind was the Mission Impossible franchise. In my mind, what happens in these movies closely aligns with our values: our mission is very important and nothing can stop us. That's how the tagline mission is possible came to be.

We make healthcare experience more human. We follow this mission and prove every day that achieving it is indeed possible. It's real and we are really committed to it, because it's unique. We have and need more fighters who feel the same way and will do anything to make it happen. Healthcare is a part of our lives and making it better, in the long run, is a huge undertaking. We try to make our product better every day by creating new features and solutions.

Lately, we delivered video consultations, which are available to every one of our doctors and to every one of their patients. We simply had to show it in our social media, because we are extremely proud of what we are creating. First, we announced what happened and then we summarized it to show it to everyone both as recognition to our teammates and to show our accomplishment to the world!

On our fan pages, you can also find many success stories of our people some of them have worked with us for a few years now. Why? Adam can answer that question.

## **GENERATED ARTICLE - GPT-2 Baseline model**

Famous for his role as a lead on "Transformers: Age of Extinction," Chris Pratt plays an ex-military soldier who goes through transformation, but is eventually put off by what he sees as an unnecessary security risk. While this isn't necessarily new to him, it's also interesting because we've seen how much he has changed over time and from where he comes from—he seems to have found ways around these issues without resorting to violence or even outright murder, which would make sense considering that many people consider him such an incredibly likable character. In fact, there are so few examples of any sort of change at all anywhere besides scenes like when one of his alter egos actually

commits suicide while looking up at himself with fear after seeing other women kill their husbands.[1] It appears that once those characters become more capable of doing things differently, they're no longer bound by certain rules anymore. That said though,[2][3] every single moment throughout the game changes dramatically based upon whether your hero was transformed during the previous two episodes, since each scene takes place between six hours and eight minutes long, depending on if the player controls a space ship or not. The same can be said for everything else; most important is whether or never a person will ever walk back out of a room alive, let alone go straight down a hallway again unless someone tells them otherwise (although sometimes some situations get completely ignored). With enough dialogue being given away frequently, players may feel less compelled to act outside of normal human boundaries and instead choose to live life in comfort rather than fearing death itself. This leads to something called "The Matrix Effect" whereby different types of events might occur simultaneously within a day due to differing goals and circumstances, resulting in dramatic shifts in narrative style often drastically altering balance. One example could be times where both sides fight against one another constantly, yet somehow find themselves unable to accomplish anything together.[4] There are several theories about why the experience works, including the idea that only members of one team were able to survive until very recently, leading to its presence before humans evolved further beyond our own species. For instance, despite having been created millennia ago, aliens still exist today using technology similar to what we see here in Hollywood.[5],[6] Another possibility relates to the way our heroes' bodies react to transformations, especially physical ones. According to research done by scientists known as Optics Research and Engineering Laboratory, whenever I saw my hero suddenly grow wings or lose weight, I felt pretty sure he'd already experienced it firsthand. Since then, however--I'm told that almost everyone involved in making the creation of robots had encountered extreme strain problems involving oxygen consumption levels below 3 percent (and perhaps higher), possibly causing specific brain damage. If nothing else, getting rid of just three quarters of the body's mass should result in substantially reduced healing capabilities compared to going directly into surgery. When this happens, it makes perfect sense as well. After losing nearly half of his upper torso to injury over the course of ten years, Bruce Wayne couldn't hold onto it either. And now...it looks like Bruce doesn't really know what happened afterwards. He does admit that his powers weren't quite right initially, particularly knowing that others did too. But finally...Bruce

realizes that maybe someday he'll reach full strength. Maybe sooner than later. Well, next week!

## **EVALUATION METRICS SCORE - GPT-2 Baseline model**

### **Content Coherence and Relevance (2 Points)**

Score: 0

Reason: The content of the generated article is incoherent and completely irrelevant to the specified title "How do you transform values into EB actions in the Tech world?" It diverges into a narrative about a fictional character's transformation and other unrelated topics, which do not address the theme of translating values into employer branding (EB) actions in the technology sector.

### **Style and Tone Consistency (3 Points)**

Score: 0

Reason: The style and tone of the article are inconsistent with what is expected in a piece focused on HR, recruiting, and employer branding in the tech industry. The generated content lacks the professional and informative tone necessary for a discussion on HR practices and employer branding.

### **Engagement and Readability (2 Points)**

Score: 0

Reason: The article is not engaging or readable for an audience interested in employer branding and HR practices within the technology sector. It fails to provide relevant information or insights, making it unengaging and irrelevant to the intended audience.

### **Originality and Creativity (2 Points)**

Score: 0.5

Reason: While there may be some originality in the narrative created, it is misdirected and does not creatively or effectively address the topic of employer branding actions in the tech world. The originality does not contribute positively to the intended subject matter.

### **Technical Accuracy and Depth (1 Point)**

Score: 0

Reason: The article lacks technical accuracy and depth concerning employer branding, HR, and recruiting in the technology sector. It fails to provide relevant or accurate information on the topic and does not delve into the specifics of transforming values into employer branding actions.

**Total Score: 0.5/10**

## **GENERATED ARTICLE - GPT-2 Fine Tuned with LoRA**

The Transformation of Value Into Action in the Tech World

David B. Johnson is a technologist at Stanford University and the author (with contributions from Daniel Kallis, Andrew Stavridis, and Scott McClelland) on the new book *Changing Value into Actions: The Making of a Better Business Model for Entrepreneurs*.

This article was originally published on Medium.

What does this mean for startups and small businesses?

One of the biggest challenges facing tech entrepreneurs is managing capital. In the past few years we have seen large companies invest heavily in growth, but there are still some areas that need to be addressed before the business model can become agile and flexible. These include creating more value, using better technology, making sure their employees retain their job satisfaction, and building good customer service relationships.

But what if we could make our own value into action, instead with an individualized approach? What would that look like?

We call this new value-driven approach a 'transformation.' This means that it takes a different mindset than how a traditional investor invests. Instead I want people who are willing—or able—to change their beliefs about value, and they know that changing their investment habits isn't just easy. They can take advantage of the opportunity to improve their company and grow their business.

In this article, I offer a simple way to convert value into action. It involves investing in different types of investments. First, I discuss how to set up a portfolio to act as the basis for your next venture. Then, I show how to create a product or service that will provide high quality services to customers, both within and outside the company; and then I explore how to use existing assets to leverage those asset classes. Finally, I explain the difference between the two approaches.

If you're interested read more, check out the video [here](#).

### The transformation of value into action in Silicon Valley

Transformation is not only possible without financial literacy, but also because it is part of our culture. While investors need to understand the nuances of money, it's very difficult to shift money when it's sitting idle in your bank account. If you don't think about it, it's hard to imagine a situation where you can fund your startup right now. And while you may never feel comfortable enough to transfer funds, you cannot simply move them anywhere else. Investors should learn how to save money by taking risks, such as holding onto things long enough to avoid being shorted.

So how do I transition value into action?

I first started investing in value-based strategies around 2014. Since then I have invested over \$300 million in value-based portfolios. As I wrote last year, I believe this is the most successful method for transforming value into action. Today, I specialize exclusively in value-based management technologies and am aiming towards achieving more than one goal every day.

Before transitioning into a value based strategy, I recommend checking out the Investment Fundamentals course. Their introductory class gives you the basics of investing in value-backed securities. Learn the fundamentals of these concepts and build a solid foundation to run your start-up. Once you have completed this course, you can continue exploring other opportunities for value-based investing.



My personal favorite value/trading strategy is the online stock trading platform TradingEcon.com. Traders typically trade stocks through the website, which allows traders to sell shares directly to clients. When trading online, I prefer to buy shares via my computer, rather than buying directly from my phone. However, once I gain confidence in the underlying principles, I view it as an essential tool to help me succeed.

Finally, I highly recommend purchasing a digital asset called MetaTrader. MetaTrader is a free subscription trading system used by thousands of brokers worldwide. Like the traditional ETFs, MetaTrader offers direct access to all trades made across all platforms. Here, you can purchase customized orders and products including personalized notes, coupon codes, futures contracts, and others. You can even add custom orders to your brokerage accounts!

At MetaTrade, I personally spend an average of 6 hours per week working with clients, analyzing market data, and testing algorithms. My passion is value investing. Therefore... I always try everything possible to find the best deal for me. If you “really want to get involved, check out my Investing Strategies series.

Want to see something completely different? Try a virtual reality experience for FREE. No ads. Just watch this VR clip below.

Read More:

Why We Need to Change Value Into Action

How to Make Money With Value Based Investing

How to Improve Your Relationship With Your Boss

How to Grow Your Company

## **EVALUATION METRICS SCORE - GPT-2 Fine Tuned with LoRA**

### **Content Coherence and Relevance (2 Points):**

Score: 0.5/2

Reason: The actual article discusses the practical implementation of employer branding (EB) values in the tech industry, closely aligning with the title and tags. The generated

article, however, diverges significantly, discussing investment strategies and value-based management technologies, which are not directly relevant to the EB topic in the tech world.

### **Style and Tone Consistency (3 Points):**

Score: 0.5

Reason: The actual article maintains a clear, focused, and relevant style, suitable for a discussion on HR and employer branding. The generated article adopts a style more suited to financial investment and technology management, which deviates from the expected HR and employer branding focus.

### **Engagement and Readability (2 Points):**

Score: 1

Reason: The actual article is engaging and readable, effectively communicating ideas about employer branding in a tech context. The generated article, while readable, lacks engagement due to its deviation from the core topic of EB in the tech world and its focus on investment strategies.

### **Originality and Creativity (2 Points):**

Score: 1

Reason: The actual article provides a creative approach to implementing EB values in the tech industry. The generated article, despite being original in content, does not creatively address the specific challenge of transforming values into EB actions in the tech world.

### **Technical Accuracy and Depth (1 Point):**

Score: 0.5/1

Reason: The actual article accurately explores the concept of employer branding within a tech context. The generated article, however, lacks technical accuracy

and depth regarding employer branding in the tech world, focusing instead on financial investment and value-based strategies.

**Total Score: 3.5/10**

## **GENERATED ARTICLE - LLama -2 Baseline model**

In today's fast-paced and competitive tech world, it's no secret that companies are constantly looking for ways to transform their values into actionable items that can help them attract and retain top talent. But what does it really mean to "transform values into EB actions" and why is it so important for tech companies to prioritize this?

To answer these questions, let's start by defining what we mean by "values" and "EB actions." Values are the principles and beliefs that guide a company's behavior and decision-making, such as a commitment to diversity, equity, and inclusion. EB actions, on the other hand, are the specific steps and initiatives that a company takes to live out those values, such as implementing a diversity and inclusion training program or creating a mentorship program for underrepresented groups.

So, how do you transform values into EB actions in the tech world? Here are a few strategies that companies can use:

1. Start with a clear understanding of your values: Before you can transform your values into action, you need to have a clear understanding of what those values are. Take the time to define your company's values and make sure they are aligned with your mission and vision.
2. Involve your employees in the process: Employees are often the best source of ideas for EB actions. Encourage them to share their thoughts and suggestions on how to live out your company's values. This can help create a sense of ownership and buy-in among employees.
3. Set specific, measurable goals: Once you have a list of potential EB actions, set specific, measurable goals for each one. This will help you track progress and make adjustments as needed.

4. Make it a part of your recruiting and HR processes: EB actions should be integrated into your recruiting and HR processes. This can include including EB actions in job descriptions, asking about them in interviews, and tracking progress in employee evaluations.

5. Lead by example: As a leader, it's important to model the behaviors and values that you want to see in your employees. This can help create a culture of inclusivity and respect, and demonstrate to employees that these values are important to the company.

In conclusion, transforming values into EB actions is an important part of building a positive and inclusive workplace culture in the tech world. By starting with a clear understanding of your values, involving employees in the process, setting specific goals, integrating EB actions into recruiting and HR processes, and leading by example, you can create a workplace where everyone feels valued and respected.

## **EVALUATION METRICS SCORE - LLama -2 Baseline model**

### **Content Coherence and Relevance (2 Points):**

Score: 1.5

Reason: The generated article is coherent and relevant to the title and tags, discussing strategies for transforming company values into Employer Branding (EB) actions in the tech world. It aligns well with the theme of HR and recruiting in tech companies. However, it lacks the specific examples and the more personalized approach that the actual article provides.

### **Style and Tone Consistency (3 Points):**

Score: 2

Reason: The style of the generated article is professional and informative, fitting for an article focused on HR and Employer Branding. It maintains a clear and structured tone, but it doesn't capture the more engaging and narrative-driven style of the actual article.

### **Engagement and Readability (2 Points):**

Score: 1.5

Reason: The article is readable and well-structured, making it accessible to readers interested in HR and recruiting. However, it lacks the engaging storytelling and detailed case studies that enhance the readability and engagement of the actual article.

**Originality and Creativity (2 Points):**

Score: 1.5

Reason: The article introduces practical strategies for transforming values into actions, showing a degree of originality. However, it does not offer the unique insights or creative approaches to Employer Branding that are evident in the actual article.

**Technical Accuracy and Depth (1 Point):**

Score: 0.8

Reason: The technical content in the generated article is accurate and provides a basic understanding of Employer Branding strategies in tech companies. However, it lacks the comprehensive depth and detailed explanation found in the actual article.

**Total Score: 7.3/10**

**GENERATED ARTICLE - Llama-2 Fine Tuned with QLoRA**

Transforming values into action is a very common thing in the tech world. As people are constantly looking for new ways to improve their skills and be more efficient at work, companies are always seeking out new ways to help them achieve this goal. This can involve anything from teaching new software applications to conducting training sessions or even creating new policies that will benefit both employees and employers alike. In order to make these efforts successful, however, it's important to understand how values fit into all of these processes. \n\nThe first step in understanding how values play a role in these activities is by recognizing what they are. Values are simply beliefs or principles that guide our behavior toward certain goals or objectives. They are often expressed through language or visual cues such as logos, images, colors, and other symbols. For example, if someone is looking to hire an employee who is passionate about learning new things, they might use the word "excitement" rather than "discipline." On the other hand, if someone is trying to recruit

someone with strong values such as integrity or honesty, they may choose to use phrases like "I value your trustworthiness" rather than "I trust you completely."

Once we have identified what values mean to us, we need to determine how they translate into actions. For instance, if we want to create an effective recruitment strategy, we could focus on attracting candidates who share our core values. We could also look for individuals who demonstrate those same values in their daily interactions. By doing so, we would be able to identify potential candidates who possess the right qualities and attributes that will help us achieve our objectives.

Another way to integrate values into our workplace culture is by using visual cues. For instance, a company may place a large poster on its wall with a list of values such as respect, accountability, teamwork, creativity, innovation, adaptability, flexibility, loyalty, commitment, perseverance, humility, compassion, empathy, kindness, gratitude, and compassion. This would not only serve as a reminder of what is expected but also provide a clear roadmap for how to act when faced with difficult situations. Additionally, by displaying these values prominently, it sends a clear message to everyone involved that we take these values seriously and are willing to go above and beyond to ensure they are upheld.

In conclusion, integrating values into our workplace culture is essential for achieving success in today's fast-paced business environment. By identifying and communicating those values clearly, we are better equipped to attract top talent, build strong relationships, create a positive work environment, and ultimately drive growth. Whether you are working for a small startup or a large corporation, it is crucial to understand how values play a role in shaping our daily lives and behaviors. So don't wait any longer! Take the time to reflect on what matters most to you and your organization, and start building your values-based culture today!

## **EVALUATION METRICS SCORE - Llama-2 Fine Tuned with QLoRA**

### **Content Coherence and Relevance (2 Points)**

Score: 1.4/2

Reason: The generated article discusses the importance of aligning values with actions in the tech world, which is relevant to the tags. However, it lacks a specific focus on employer branding (EB) and the practical implementation of values into EB actions, which is a key aspect of the actual article.

### **Style and Tone Consistency (3 Points)**

Score: 1.8

Reason: The style is professional and informative, suitable for an audience interested in HR and corporate values. However, it doesn't capture the specific focus on employer branding and the more practical, action-oriented approach of the actual article.

### **Engagement and Readability (2 Points)**

Score: 1.6

Reason: The article is structured in a clear and readable manner, but it could be more engaging by including specific examples or case studies, especially those related to the tech industry and employer branding, which are often used in articles to enhance understanding and engagement.

### **Originality and Creativity (2 Points)**

Score: 1.5

Reason: The article presents general ideas on integrating values into workplace culture, showing a degree of originality. However, it lacks the creative insights or unique approaches to employer branding seen in the actual article, such as the specific initiative of #PeopleofDocplanner.

### **Technical Accuracy and Depth (1 Point)**

Score: 0.7

Reason: The article touches on the importance of values in the workplace but lacks the depth and detailed exploration of these issues in the context of employer branding and recruitment, as seen in the actual article.

**Total Score: 7/10**

