

Kevin blabs about America and programming for a really long time

CS at UofM, software in the US, and how to succeed



5 December 2023

What is this?

I will be talking about learning computer science at my home institution, as well as software engineering in the US, DEI, and my own future plans.

At the end, I will share some contact information for you to reach out to me if you have further questions about coding / your own projects (I cannot help with class homework :P).

Any questions are highly encouraged!

Keep in mind these opinions are all mine

Take it with a grain of salt!



- I am an intense person and don't respect "fun stuff" as much as other people :p
- I am not someone with 15+ years of academic / industry experience, so some of my advice may lack perspective
 - I have tried to incorporate advice from my own mentors; some of them have 20+ years
- In general, just because someone is an authority figure doesn't mean they actually know what they're talking about

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- Computer Science and Engineering at the University of Michigan
- Software engineering by American standards
- DEI (diversity, equity, and inclusion) and student mental health
- My plans in Poland?
- Contact info and Discord group

Some numbers

per <https://cse.engin.umich.edu/about/by-the-numbers/>



Some pictures



Some professors I've met*



James Juett, Sofia Saleem, Saquib Razak, Jon Beaumont, Andrew DeOrio

EECS 280



Roya Ensafi

Censored Planet



Scott Mahlke

Compilers



David Fouhey, Justin Johnson, Andrew Owens



Greg Bodwin

Theory of Computation Department



Computer Vision Group

What does a degree at UofM look like?

- Bachelor's is typically 4 years, 128 credit hours
- Master's is typically 2 years or more, 30 credit hours
- I took a slightly unusual path:
 - Completed bachelor's degree in 5 semesters (September 2019 - December 2021)
 - Started an accelerated master's degree in January 2022 and finished in August 2023

Class schedule - bachelor's

- Core classes: intro to programming, discrete math, data structures and algorithms, and introductory theory / computer architecture
- 26 classes of technical credits
 - Lots of options here! Systems, artificial intelligence, hardware, web / UI, ...
 - I took machine learning (EECS 445), database systems, operating systems (EECS 477), and algorithms (EECS 477)
- A senior design project
 - I created a search engine from scratch with a team (EECS 440)
 - Other options include making a video game (EECS 494), a mobile app (EECS 441), a computer processor (EECS 470), ...
- “Flex tech”, electives, and general College of Engineering requirements

Class schedule - master's

- 24 graduate-level technical courses, 15 of which need to be in computer science
- I took these classes:
 - Probability and random processes (EECS 501)
 - This was too difficult for me and I was having a hard time personally, so I dropped it.
 - Graduate-level algorithms (EECS 586)
 - Advanced compilers (EECS 583)
 - Natural Language Processing (EECS 595)
 - Ethics for Artificial Intelligence (EECS 598-001)
 - Hardware and Software Verification (EECS 598-002)
 - Network Security (EECS 588)
 - Category Theory (EECS 598-007)

Opportunities in the computer science department

- Research with faculty
 - Either through university programs like UROP (undergraduate research program) or by working directly with a professor
 - Lots of undergraduate and masters students publish papers to top-tier international conferences
 - I might eventually have my name on a paper, but it's uncertain
 - PhD students are the best of the best and are expected to regularly publish
- Career fairs and other job-seeking opportunities
- And the biggest one...

Student organizations

Michigan Mars Rover Team



WolverineSoft



WolverineSoft
make games. play games.

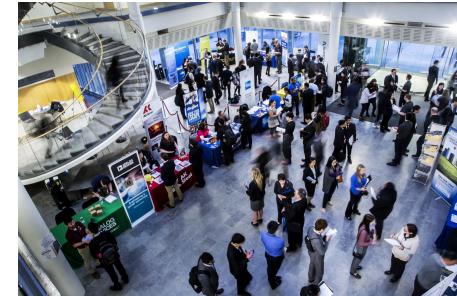
WolvSec



Tau Beta Pi



Society of Women Engineers



MFly



How do we have all of these things?

- Legacy
 - John F. Kennedy once described himself as “a graduate of the Michigan of the East, Harvard University”
 - People can get really arrogant about this...but it is true that institutional reputation has real-world impact – people trust you more
- Funding
 - University endowment (financial assets) estimated at \$17.9 billion this past year
- Selectivity
 - University tries to take the best of the best
 - Acceptance rate for College of Engineering in 2023 was 15% for undergraduates, 29% for graduate

We have fun too :)



Do you get all these opportunities for free?

Financial cost

Tuition = cost of attendance

Undergraduate tuition:

\$65,204 / year
(\$23,392 if local)



Graduate tuition:

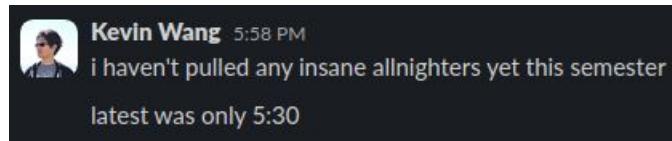
\$58,028 / year
(\$30,940 if local)

University offers financial aid to students with lower incomes, but it's complicated. Student loans are very annoying to deal with.

I was very lucky to be a student teacher and have my master's fully funded.

Mental cost

- Classes are very demanding
 - If you are unable to manage time effectively, work piles up very high very quickly
 - This was from a conversation I had with someone during my last semester



- University runs a program called CAPS, which stands for Counseling and Psychological Services
 - It is constantly overbooked and overwhelmed by stressed-out students.

There's no guarantee that things work out

- Most people quickly find work after graduating from Michigan, especially in computer science...
 - ...but some don't
- Some people don't take care of themselves (food, hygiene, etc.) and come out with physical or mental health problems
- Some people work too hard and never develop social skills or figure out what they actually want out of life
- Some people don't work hard enough and graduate knowing nothing
- The main point: **balance is very important**

I'm glad I attended Michigan, and I'm proud of my degrees

But I have classmates who wouldn't say the same.



I don't think elite American-style universities are the right choice for everyone.

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It is my opinion that America has the best software in the world

- Culturally, Americans have always loved technology
 - Much of the software used around the world is created in America
- Economically, Silicon Valley is still the cutting edge of software development
 - This may change in a few decades depending on how tech evolves in China
- Historically, American inventors are some of the biggest names in software
 - Companies (IBM, Intel, Apple, Google...) and people (Ken Thompson, Dennis Ritchie, Brian Kernighan, ...)
 - Many companies and people outside the US too, but few on the same cutting-edge level
- American standards for software engineers are the gold standard for the rest of the world

What is the most important skill in SWE (software engineering)?

COMMUNICATION

It is much harder to teach someone social skills than technical skills.



Why does it matter?

- Programmers don't work alone in the real world
 - You have to be able to be independent, but no big product is made by one person (except for extremely talented and passionate people)
- What do you do when...
 - ...you want to make a commercially viable product that people actually use?
 - ...you receive assignments that are incomplete / missing important points?
 - ...you don't understand the code that someone else wrote?
 - ...you are struggling with work-life balance and need help from others / time off?

Other “soft skills” that are also important

- Teamwork
 - Conflict resolution
 - Creativity
 - Flexibility
 - Self-care (showering!)
-
- In short, you have to make people want to work with you, and for this you need to have strong soft skills

Socializing and building a professional network

- **Networking:** building relationships with people in your field
 - Can be from working with people, attending professional events, or anywhere really
 - **Connection:** someone you know via networking
- This is very, very important
- You can get jobs by knowing people!
 - People are more comfortable hiring someone that an employee knows, rather than a complete stranger
 - It is much easier to find work by connections than by running the whole gauntlet

At the same time, you need the technical skills

- No use being a good team member if you can't actually code!
- Certain skills are particularly marketable right now...
- ...but fundamentally, I think good SWEs have two core abilities:
 - Being able to dig deep into a system and figure out how things work
 - Being able to envision a product, figure out what tools / resources are the best choice for building it, and build it (not necessarily on your own!)
- How to develop these skills? Practice practice practice!
 - Challenge yourself – don't stick to what you know!

Aside: if you need to query ChatGPT to do anything, you will not be useful enough to get hired in most places

- ChatGPT is not reliable enough with real-world codebases to be useful
- I think it's fine to use as a “better version of Google”, but in order to learn,
you should be struggling through difficult problems
 - No difficulty == no learning



Last important thing: **drive**

- Drive (as a noun): energy and determination to achieve things¹
- You have to want to keep digging deeper and figuring things out about software systems!
- At minimum, you have to work very hard as a student / job interviewee
 - In the US, If you can't focus enough on your studies / interview prep, you will not get a job.
- In America, not being committed and passionate is not an option anymore
 - There are many people seeking jobs right now, so companies can easily hire people who genuinely care about what they do
 - This is a bad thing for software engineers' mental health. Burnout is a serious problem!

1: <https://dictionary.cambridge.org/dictionary/learner-english/drive>

Preparing for coding interviews

Job applications generally look like this:

- Apply for the job on the company website or LinkedIn / Indeed / Blind / ...
- If your resume moves on, 15-30 minute phone screening
- If you pass the phone screening, at least one round of 1+ hour interviews:
 - Technical screening (solve a LeetCode medium / hard problem)
 - Soft skill screening (discuss possible workplace scenarios)
 - Discussing your prior technical experience
 - For more advanced roles, more advanced technical screening (system design, security, OS...)
- For certain roles, companies will ask for more specific skills
 - Some examples I can give...

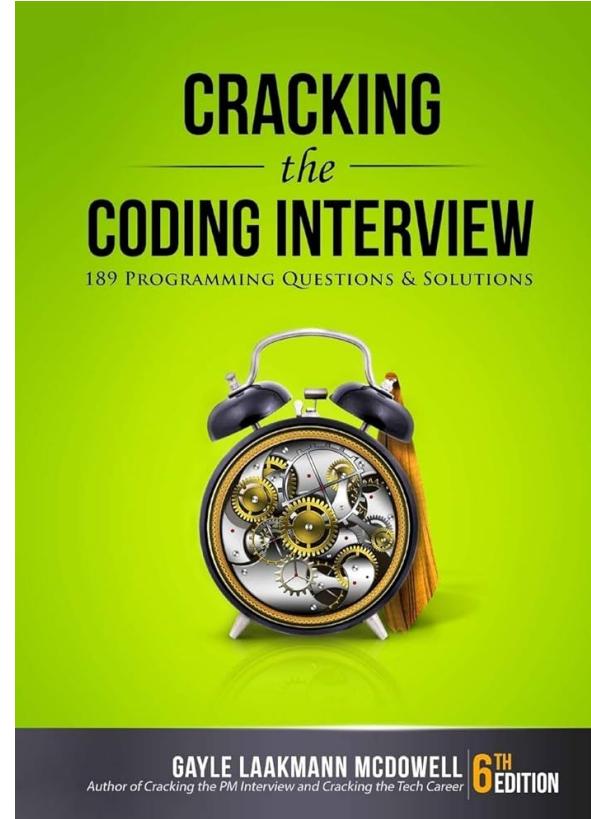
Practice resources

- Use practice problems from LeetCode or Hackerrank
- I will give some of the most popular practice resources, but there is no secret to doing well in an interview except:
 - Practice practice practice!!!

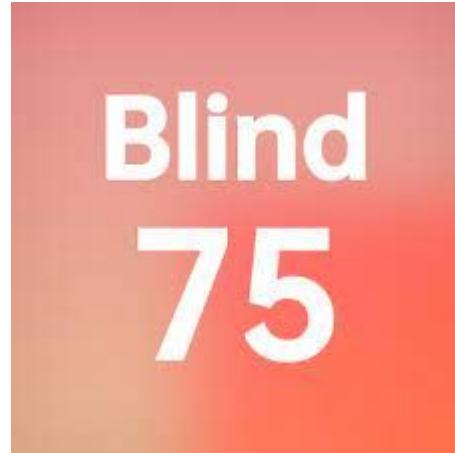
THE textbook on coding interviews

There are others, but Gayle McDowell's book is by far the most famous.

Teaches you essential data structures and algorithms



THE list of practice problems



You can find the Blind 75 list on LeetCode, plus extensions for more practice.

You can practice mock interviews on Pramp

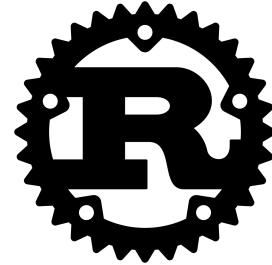


Pramp

Not as important as the previous two, but if you struggle with the interview environment it can be useful. I try to practice with friends first and foremost.

Python is the most common language for interviews

- Some will ask for C++ or similar
- All depends on the company!

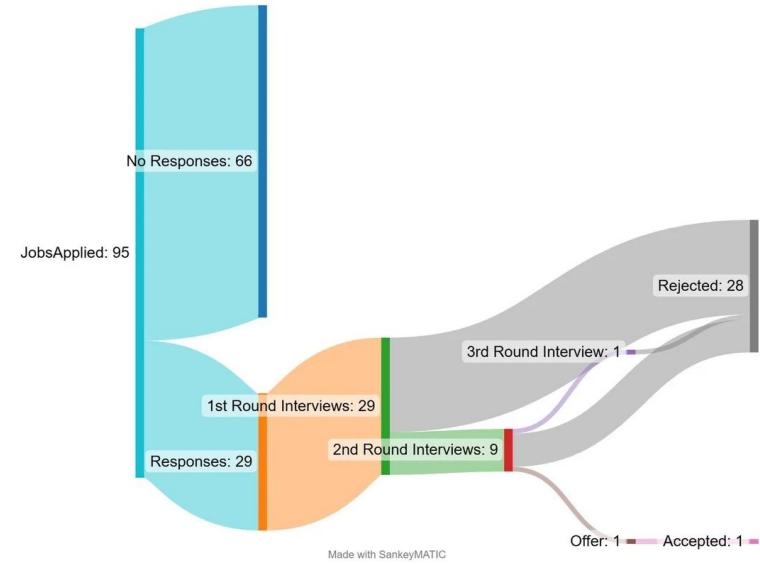


- For learning purposes, I believe in learning one imperative language and one functional language (e.g. C / C++ / Java / Rust, then Lisp / OCaml / Haskell)

Success rate is low – you have to apply to lots of places

- Rejection should be the expectation
 - You only need one company to accept you!
-
- This SankeyMatic diagram is from someone with 9 years of experience – these are very good statistics

https://www.reddit.com/r/dataisbeautiful/comment/s13ouifi/my_6_month_job_search_as_a_software_developer_oc/



Building a portfolio

Question I received: What do companies look for from job applicants who are very young and have no experience?

In America, nothing – you will not be considered.

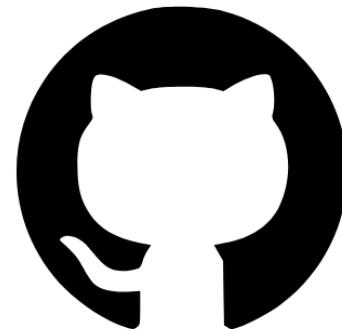


Portfolio: collection of projects that represent a person's work

- It doesn't have to be paid work experience, but you need to have projects of some sort in order to get a job
 - Most of my projects came from schoolwork, because Michigan makes you learn by doing projects
 - Other projects came from work / research experience and 1-2 personal projects
- The results themselves are not as important as the skills and tools you learn while doing the projects
 - At least early on – once you have more experience, you will be expected to have strong results

I maintain my portfolio in a few different locations

- LinkedIn, GitHub, and personal website
- If you have personal projects, they should also be on display somewhere



Quick things to do before working on projects:

- Set up a coding environment
 - Pick an operating system: Windows, Mac, or a Linux distribution?
 - If you're on Windows, I highly recommend WSL or Ubuntu 20.04 in VirtualBox
 - My university has public setup tutorials for C++ environments:
<https://eecs280staff.github.io/tutorials/>
 - I code directly in a Linux distribution (Ubuntu)
 - Pick an IDE (integrated development environment) or text editor
 - IDE: more complicated to set up, but more powerful
 - Text editor:
 - I use VS Code – very very lightweight IDE
 - Set up version control - GitHub highly recommended

How to decide on a project?

- What do you want to learn?
 - Specific languages / techniques?
 - Machine learning, web dev, or other subfields of computer science?
- What do you care about / enjoy?
 - Is there a way to add software that would help you / your friends in your daily life?
 - You are unlikely to be motivated to finish a project you don't care about
- My standard recommendations:
 - Personal website
 - Small computer vision / natural language processing application
 - Small game in Unity / Unreal / Godot
 - Coding competitions

Group projects are important!!!

- You could work together on...
 - ...a web or mobile app
 - ...a website
 - ...competitions!
- Group projects let you talk about how you cooperate with other people
- Difficult to justify hiring people with zero teamwork experience
- If the school does not give you opportunities to work together, create those opportunities
 - I am open to facilitating group projects if desired

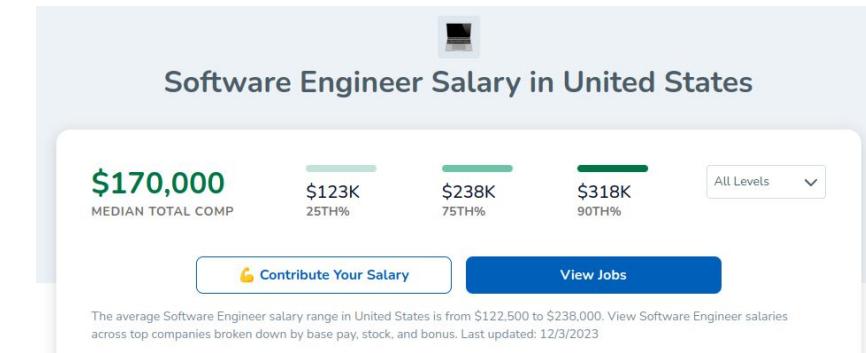
Other notes on American SWE culture

Americans are very diverse in terms of how they treat you

- Most of my coworkers have been great people who care about helping people who need help
- Some Americans just aren't very nice people...and will try to make you feel weak / small even if you aren't
- But at the end of the day, if you don't have **BOTH** excellent technical and social skills, American companies will not want you.
 - There are plenty of people fighting for the same jobs.

Everything I am saying in this segment is for SWE in America

- Standards elsewhere I think are generally lower because the salaries are much lower
 - I don't know! Different cultures may have different preferences on tools / principles / etc.
 - Everything I said about good software engineering applies regardless of where you are



Information taken from levels.fyi

Do you want to go work in America?

Immigrating to the US is difficult nowadays

Your best bet (most realistic opportunity) is probably to work for an international company in Poland, prove yourself, and then request a transfer.



American culture is very different from Polish culture (at least from what I've seen)

- Higher value on individualism
- Usually friendlier but less genuine
- More emotional
- Strangers will approach you on the street
- More crime, though it depends where you live
- Work is a bigger part of people's lives and self-esteem
- Some people enjoy this kind of environment, some people don't
 - Don't plan to go to the US just for salary, ask yourself if you would actually enjoy life there

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What does DEI (diversity, equity, and inclusion) mean?

DEI = diversity, equity, and inclusion

- Overall idea: support different groups of people in an organization
 - Race, ethnicity, disabilities, gender, sexual orientation
- Has become particularly important in American university / corporate culture*
 - Same with mental health of students and employees

*except when money matters more

Why do we care about these things?

- Part of it is kindness and being a good human being
- Part of it is increasing worker productivity by removing personal / emotional distractions from the workplace
 - Never forget that institutions (companies, universities, governments) care about themselves before caring about the people who are part of the institution
 - Other people will care about you! But institutions are not people.

I will present some slides on DEI that I used when I was teaching at my university

- I will present these slides the same way I presented them to my students at Michigan
- These are for an American audience, so some issues may not line up with your experience in Poland.
 - Or maybe they do! In which case I hope they are helpful.
- These are serious subjects.
 - Treat these seriously! In the US, it looks really bad to completely reject DEI as a concept

Individual issues in CS

Imposter syndrome, burnout, and crunch

Why spend 10-15 minutes talking about this?

- It's better than learning it the hard way.
- They're “invisible problems” – people don't like talking about these things candidly.
 - I'm not an expert on these topics, but I feel obligated to at least bring it up so no one feels like they're going through these things alone.
- **Goal:** show you that these are well-documented problems that many people have faced, and that you're not alone if you are going or later go through one of these
 - NOT to project personal experiences or opinions onto you, at least for this portion
 - There will be some of that in the second portion

Definitions

Imposter syndrome

- No single definition – not a clinically diagnosable condition
 - First termed as “imposter syndrome” in 1978 (Clance and Imes), but term is used more broadly today than it was in that context.
- In short, feeling like you’re not good enough
 - **Extreme lack of self-confidence:** *“I have zero talent.”*
 - **“Faking it”:** *“One day they’re going to realize how stupid I am.”*
 - **Constant comparison to others:** *“I’m not as good as ...”*
 - **Downplaying one’s own achievements:** *“I could’ve done more on that project.”*
 - other symptoms ascribed as well
- Ties in with cultural issues – competitiveness, exclusivity, DEI imbalances...
- We think that IS is a major contributor to students dropping out of the intro EECS track (everything before and including 281).

TYPES OF IMPOSTER SYNDROME*

IS comes in different types

- A big common thread: **high achievement in the past**
- Another big common thread: **unrealistic self-expectations**



THE PERFECTIONIST

Always look for things to go perfectly. Slight errors are considered failure which lead to feelings of shame and guilt.



THE SUPERHERO

Success is based on how many different roles they can play (parent, partner, boss, etc.) If they can't play them all perfectly, they feel like a fraud.



THE EXPERT

Seeks to know everything. In the face of even the slightest lack of knowledge about something they feel like a failure.



THE NATURAL GENIUS

Expect to meet high goals quickly and effortlessly. When things get difficult they feel very ashamed.



THE SOLOIST

Needs to do things alone without help from anyone. Interprets needing help as a sign of their weakness and failure.

*according to Dr. Valerie Young

Burnout

- Clinical definition:

Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions:

- *feelings of energy depletion or exhaustion*
- *increased mental distance from one's job, or feelings of negativism or cynicism related to one's job*
- *reduced professional efficacy*

- Plain English: being so stressed out about school / work that you “just can’t”.

- Stress is the key – not the number of hours or the amount of stuff you’re doing.

Crunch, also known as death marching

- Primarily an industry / grad school problem: when someone tells you to work harder / longer so you can meet a deadline
 - “Forced burnout”
- Scenario: your manager tells you that for the next six months, you have to work 12 hour days + weekends without overtime pay
 - This does happen.
 - [Dr. Elon & Mr. Musk: Life Inside Tesla's Production Hell](#)
 - [EA Spouse](#)
 - [The Death March to Release NetScape](#)
- Common (but not universal) in the tech industry.

Now that you know these things exist, it's important to avoid **placebo effect** too

- **Placebo effect:** when thinking about it makes it real
 - e.g. someone wonders if they're having imposter syndrome, creating more thoughts about imposter syndrome and increasing feelings of imposter syndrome
- IS: do you genuinely not know something, or do you feel like you aren't good enough / smart enough / some other quality?
- Burnout: are you just tired? If you take a weekend to rest, will you be fine?
- **Not the same as anxiety / depression / etc**
- Can be hard to discern – **talk to people you trust**

Quick anonymous survey

Cultural issues in CS

Implicit bias and DEI

Having implicit biases is not something you can control

Implicit bias, also known as implicit prejudice or implicit attitude, is a negative attitude, of which one is not consciously aware, against a specific social group.

Implicit bias is thought to be shaped by experience and based on learned associations between particular qualities and social categories, including race and/or gender. Individuals' perceptions and behaviors can be influenced by the implicit biases they hold, even if they are unaware they hold such biases. Implicit bias is an aspect of implicit social cognition: the phenomenon that perceptions, attitudes, and stereotypes can operate prior to conscious intention or endorsement.

(taken from the American Psychological Association (APA))



Ideally, we acknowledge our implicit biases and work to mitigate them...

...but people don't always choose to do this.

What happens when this gets out of hand?

- I will go through some slides highlighting DEI failures in the real world.
 - These slides may be uncomfortable, especially to women in the classroom.
 - These stories may be familiar.
- I will precede this by saying there are good people and there are good organizations that do their best to support everyone, regardless of race / gender / country of origin / ...

Incidents



It wasn't just the algorithms or their training data that skewed white. In 2015, Gebru got her first glimpse of the worldwide community of AI researchers at the field's top conference, Neural Information Processing Systems (NIPS), in Montreal. She noticed immediately how male and how white it was. At a Google party, she was intercepted by a group of strangers in Google Research T-shirts who treated the presence of a Black woman as a titillating photo op. One man grabbed her for a hug; another kissed her cheek and took a photo. At the next year's conference, Gebru kept a tally of other Black people she met, counting just six among the 8,500 attendees—all people she already knew, and most of whom she'd already added to an email list she'd started for Black people in the field. After the event, Gebru posted a warning to AI researchers on Facebook about the dangers of their community's lack of diversity. "I'm not worried about

Incidents



After the first couple of weeks of training, I chose to join the team that worked on my area of expertise, and this is where things started getting weird. On my first official day rotating on the team, my new manager sent me a string of messages over company chat. He was in an open relationship, he said, and his girlfriend was having an easy time finding new partners but he wasn't. He was trying to stay out of trouble at work, he said, but he couldn't help getting in trouble, because he was looking for women to have sex with. It was clear that he was trying to get me to have sex with him, and it was so clearly out of line that I immediately took screenshots of these chat messages and reported him to HR.

Uber was a pretty good-sized company at that time, and I had pretty standard expectations of how they would handle situations like this. I expected that I would report him to HR, they would handle the situation appropriately, and then life would go on - unfortunately, things played out quite a bit differently. When I reported the situation, I was told by both HR and upper management that even though this was clearly sexual harassment and he was propositioning me, it was this man's first offense, and that they wouldn't feel comfortable giving him anything other than a warning and a stern talking-to. Upper management told me that he "was a high performer" (i.e. had stellar performance reviews from his superiors) and they wouldn't feel comfortable punishing him for what was probably just an innocent mistake on his part.

Black people in the
not worried about

Incidents



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that I would
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field. After
comfortable

BlizzCon Cosby Crew

Dave Kosak: I am gathering the hot chixx for the Coz

Alex Afrasiabi: Bring em

Cory Stockton: Greg, you otw?

Dave Kosak: You can't marry ALL of them Alex

Alex Afrasiabi: I can, I'm middle eastern.

Jesse McCree: You misspelled fuck

Greg Street: At hilton bar

Jesse McCree: Come up to the cos

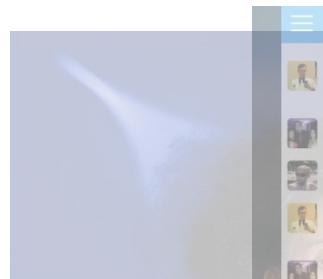
Cory Stockton: Possibly the greatest group chat in the history of mankind

Lol!!

“During a company event (an annual convention called Blizz Con [sic]) Afrasiabi would hit on female employees, telling him [sic] he wanted to marry them, attempting to kiss them, and putting his arms around them,” the complaint reads. “This was in plain view of other male employees, including supervisors, who had to intervene and pull him off female employees. Afrasiabi was so known to engage in harassment of females that his suite was nicknamed the ‘Cosby Suite’ [sic] after alleged rapist Bill Cosby [sic].”

comfortable giving him anything other than a warning and a stern whom she'd already added to an email list she'd started for Black people in the performance reviews from his superiors) and they wouldn't feel about the dangers of their community's lack of diversity. I'm not worried about comfortable punishing him for what was probably just an innocent mistake on his part.

Incidents



Soon after, on the plane ride back from a work trip to China, Damore wrote a 10-page memo arguing that biological differences could help explain why there were fewer female engineers at Google, and therefore the company's attempts to reach gender parity were misguided and discriminatory toward men. On average, he wrote, women are more interested in people than things, more empathetic, more neurotic, and less assertive. To support these claims about personality differences, Damore cited two studies, three Wikipedia pages, and an article from Quillette, a contrarian online magazine that often covers free speech on campus and alleged links between genetics and IQ. In the memo, Damore wrote that hiring practices aimed to increase diversity "can effectively lower the bar" at Google.

Plenty of Damore's colleagues, however, had heard this perspective before. Ad nauseam. "People would write stuff like that every month," says one former Google executive. When the subject of diversifying Google's workforce comes up in big meetings and internal forums, one black female employee says, "you pretty much need to wait about 10 seconds before someone jumps in and says we're lowering the bar." (After

TL;DR

- Google's political bias has equated the freedom from offense with psychological safety, but shaming into silence is the antithesis of [psychological safety](#).
- This silencing has created an ideological echo chamber where some ideas are too sacred to be honestly discussed.
- The lack of discussion fosters the most extreme and authoritarian elements of this ideology.
 - Extreme: all disparities in representation are due to oppression
 - Authoritarian: we should discriminate to correct for this oppression
- Differences in distributions of traits between men and women may in part explain why we don't have 50% representation of women in tech and leadership.
- Discrimination to reach equal representation is unfair, divisive, and bad for business.

Background

People generally have good intentions, but we all have biases which are invisible to us. Thankfully, open and honest discussion with those who disagree can highlight our blind spots and help us grow, which is why I wrote this document. Google has several biases and honest discussion about these biases is being silenced by the dominant ideology. What follows is by no means the complete story, but it's a perspective that desperately needs to be told at Google.

Google's biases

At Google, we talk so much about unconscious bias as it applies to race and gender, but we rarely discuss our moral biases. Political orientation is actually a result of deep moral

skewed white. In 2015, Gebru had pretty standard expectations of Systems (NIPS), in Montreal. She noticed immediately how male and how white it was. At a Google Research T-shirts who both HR and upper management [sic], even though this was clearly sexual harassment and he already knew, and most of whom she'd already added to an email list she'd started for Black people in the researchers on Facebook about the dangers of their community's lack of diversity. I'm not worried about innocent mistake on his part.

Incidents

Soon after, on the plane ride back from a work trip to China, Damore wrote a 10-page memo arguing that biological differences could help explain why there were

A few weeks after my start date, a fellow intern approached me in our intern housing and grabbed my butt while I was washing my dishes. I reported the incident to a superior and another colleague, but the matter was never brought to HR. I had to continue living in the residence with this man.

Damore cited two studies, three Wikipedia pages, and an article from Quillette, a contrarian online magazine that often covers free speech on campus and alleged

In the past year alone, I have had to bring multiple different incidents of sexism to HR. Some of the men who work at SpaceX hug women without consent, stare at women while they work, and interpret every company-related social event as an opportunity to date (or hit on) women in the office. I saw one woman pressured into dancing with a male colleague in front of other male employees. When we had to work from home during the pandemic, men from the company found my Instagram account, messaging me to ask me out. One called my phone at 4:00 am. Another coworker came to my house and insisted on touching me even when I repeatedly requested we stay professional.

"need to wait about 10 seconds before someone jumps in and says we're lowering the bar." (After



Incidents

Soon after, on the plane ride back from a work trip to China, Damore wrote a 10-page memo arguing that biological differences could help explain why there were fewer female engineers at Google, and therefore the company's attempts to reach gender parity were misguided and unnecessary. A few weeks after my start date, a fellow intern approached me in our intern housing and grabbed my butt while I was washing another colleague, but the matter was resolved quickly.

To support these claims about personality differences, Damore cited two studies, three Wikipedia pages, and an article from Quillette, a contrarian online magazine that often covers free speech on campus and alleged links between genetics and IQ. In the memo, Damore plotted hiring practices aimed to increase diversity "can effectively lower the bar" at Google.

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TL;DR

- Google's political bias has equated the freedom from offense with psychological safety, but shaming into silence is the antithesis of psychological safety.
- This silencing has created an ideological echo chamber where some ideas are too sacred to be honestly discussed.
- The lack of discussion fosters the most extreme and authoritarian elements of this ideology.
- Dave Kosak: You can't Extreme: all disparities in representation are due to oppression ALL of them Alex o Authoritarian: we should discriminate to correct for this oppression
- Alex Afrasiabi: Differences in distributions of traits between men and women may in part explain why we eastern. don't have 50% representation of women in tech and leadership.
- Jesse McCree: Discrimination to reach equal representation is unfair, divisive, and bad for business. fuck

Off the record.

and help us grow, which is why I wrote this document. Google has several biases and honest discussion about these biases is being silenced by the dominant ideology. What follows is by no means the complete story, but it's a perspective that desperately needs to be told at Google. "During a company event (an annual convention called Blizz Con [sic]) Afrasiabi

but we all have biases which are invisible to us. with those who disagree can highlight our blind spots

On my first official day, right after I joined the team, my new manager sent me a string of messages on Slack, telling him [sic] he wanted to marry them, attempting to get her to hook up around them," the complaint reads. "This was in line with the culture at work he said, but he rarely discuss our more biases. Political orientation is actually a result of deep moral

It heard this perspective before. Ad Hauseam. skewed white. In 2015, Google lost a glimpse of the worldwide community of AI researchers at the sum off female employees. Afrasiabi was so known to engage in harassment of females that his suite was nicknamed the "Crosby Suite" [sic] after alleged rapist Bill Crosby

He People would write stuff like that every month, they make things existive. What the diaries and upper management told." He was clearly sexual harassment and he kept a tally of other Black people she met, counting

that she wouldn't feel comfortable giving him anything other than a warning and a stern to an email list she'd started for Black people in the field. He performance reviews from his superiors) and they wouldn't feel

researchers on Facebook about the dangers of their community's lack of diversity. I'm not worried about

So what do we do?

- Do we react for a few moments and then forget about it?
 - “They did WHAT? OMG” *doesn’t think about it again*
- Do we become cynical and say it will always be like this?
 - “My job is to worry about technical details, not people stuff.”
- Do we say the field as a whole is morally corrupt?
- Do we have to feel guilty for being part of the computer science field?
- Do we give up and quit computer science while we can?

**Wherever you go, you are
part of the culture – but
you are not defined by it.**

You can be the good part.

If you want to be the good part, this is what I would say:

- **1. Support yourself first.**
 - **Find others who support you, who you aren't competing with / comparing yourself to.**
 - People you can talk about "real" things with.
 - This applies to everyone! Either you go alone or you go far.
 - Remember that you are a young person in a defining part of your life.
 - School is important, but your well-being is more important.
- **2. When you are ready, go out of your way to help others.**
 - Lots of opportunities for service! Helping friends / peers on Piazza, clubs, teaching, etc.
 - Especially younger students! Tell them about the things you wish you had known early on.
 - Remember that everyone else is living their own complicated life, which will include issues you don't know about / won't understand.
 - Your identity does not make your knowledge and experiences less valuable to others.
 - This applies to both underrepresented and overrepresented groups.
 - "Wherever you go, put down a ladder." - Prof. David Fouhey, EECS 442 professor

Student orgs to help build your community!



National Society of Black Engineers



Girls in Electrical
Engineering and
Computer Science



Jewish Engineering
Association



Eta Kappa Nu



Out in Science,
Technology, Engineering,
and Mathematics



1st Generation Engineers



Society of Asian Scientists
and Engineers



Women in Electrical and
Computer Engineering



University of Michigan
Society for Advancement
of Hispanics/Chicanos
and Native Americans in
Science (SACNAS) Chapter



Society of Hispanic
Professional Engineers



Engineering Student
Government



Women in Science and
Engineering Residence
Program Peer Mentors

And NO, you do need to be an engineer or be in College of Engineering to be a part of these student orgs :))

...and there are many, MANY more that you can find here: <https://maizepages.umich.edu/>

I am here if you want to talk about anything

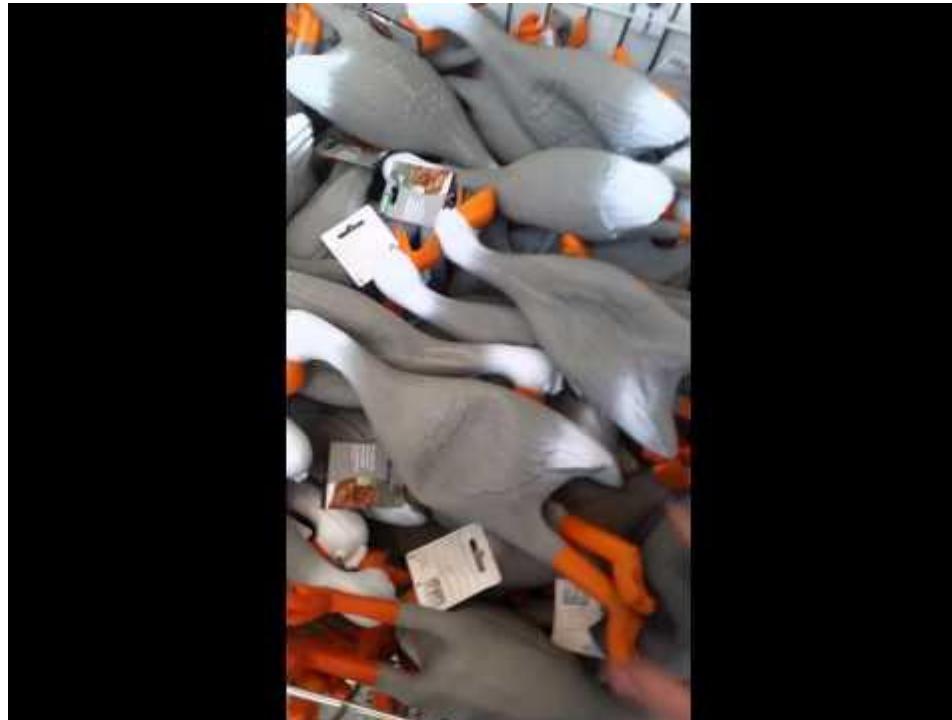
- Burnout and imposter syndrome ruined my first semester of graduate school
 - But my experience has taught me ways to manage them effectively
- I did an informal project on this last summer at <https://brilliantlittlefires.com/>
- I'm not super familiar with DEI, but I have worked to try and improve it in some clubs I was in
- I am not a therapist / psychiatrist and I am not a great long-term resource
 - But my duty is to support you however I can, so I will listen if you need to talk about something.
- You can talk with me after class or contact me by email (musicer@umich.edu)

If you want to say something but want to be anonymous /
don't want to say it to my face, you can use the form here



I will read all of these.

Funny video to ease it back



Thoughts?

- Did you know about any of these things?
 - Have you experienced any of these things?
 - Do Polish teachers / professors discuss these subjects?
 - Do you believe your education system does a good job of handling these issues?
-
- Even if you do not genuinely care about people's problems, it's helpful in and out of the workplace to be aware of what others might be going through.

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- Computer Science and Engineering at the University of Michigan
- Software engineering by American standards
- DEI (diversity, equity, and inclusion) and student mental health
- My plans in Poland?
- Contact info and Discord group

What are
the most
important
things
here?

The most important things:

- You are likelier to succeed and live a good life if you work with other people!
 - “Go alone, or go far.”
 - I highly recommend looking for internships / other opportunities in Warsaw / Gdańsk / Kraków – you will find more people in those cities who are interested in software.
- Build a portfolio!
 - If school doesn't supply you with enough projects to show off, you'll need to build your own.
- Being kind to others is way more useful than you'd expect.
- Figure out a work-life balance that lets you grow professionally without completely draining you!
- Nothing replaces hard work.

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Rest of my teaching in Łomża?

- December - February are not very busy for me right now
 - This may lead to issues...
- Unsure what I am teaching in March, but likely at least one or two computer science courses
- Hoping to start a group / club for people interested in learning more about programming / working on code side projects – more on that later

Why not stay in the US and make lots of money?

I care about teaching and service.

“But why not somewhere ‘nicer’ than Poland, then?”

Why I came to Poland instead of France / Sweden / Japan / Mongolia...

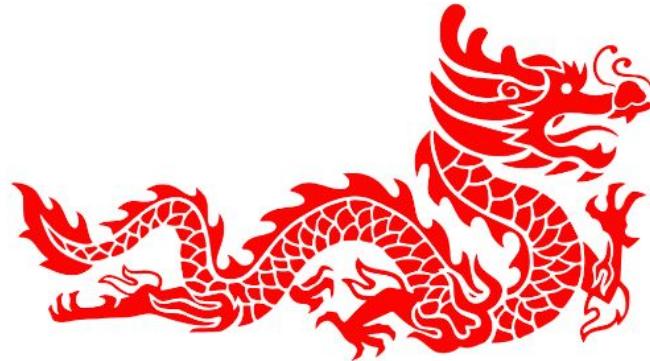
My family is Chinese. We suffered a lot during World War II and Mao, and my parents moved to Canada, then America when China began opening up.

From my understanding, the Poles experienced very similar hardships in the same time period. I would like to:

- compare Polish and Chinese history in this time frame and learn why they had such different outcomes
- learn how Polish people treated each other during hard times

If you are interested in more, I have an introduction to my project here

Hey Falcon, Hey Dragon / Hej Sokoły, Hej Huzarzy / 鹰与龙



I've made progress but haven't done an additional write up since the first one.
Hoping to share more next week...

Professionally, I am looking to enter the game industry in Seattle once I leave in June

- I plan to start contributing to Godot next week(? or later, but I need to stop putting it off lol)
- Tentatively, the plan is to work at an established studio for 2-3 years, then try indie for at least one year
- Anticipating lots and lots of work in my near-future life
- Later? Start a family, maybe move to a different city / country, maybe change my profession...

If you would like to follow my journey, my blog / personal website is here

<https://michigan-musicer.github.io/>

Email newsletter / subscription for updates to be set up later this month!

May or may not be a good way to practice reading English? I use big words :)

Lots of stuff I want to write that has not been written yet :))))))

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Here is how to reach me after today

- LinkedIn: <https://www.linkedin.com/in/kevin-wang-978627196/>
- Email (non-AL): musicer@umich.edu
- Discord: _musicer
 - I check Discord the most frequently
- WhatsApp: ask me directly for a phone number.

Discord server

- Intention: quickly and easily ask me for advice
 - Can be anything that is NOT coursework
- “Coding club”?
 - I can help you guys set up coding environments, advise personal projects, ...
 - If we are interested in meeting in person, we can coordinate that in the server.
 - If we meet in person, I can order pizza when we meet 
- Can also be helpful if you want to keep improving your English with me! 
- Only join if you want to code outside of class – otherwise it will not be a good use of your time

Discord server QR code invite!



Short assignment

Complete a survey and set up a GitHub account, LeetCode account, and one of the job application accounts

Go to GitHub ⇒ michigan-musicer ⇒ al.lab_8 and follow instructions in the README.

