What do you expect the biggest challenges to be for individuals in the role

Actually learning ignition, managers scaled approach,

What’s the ignition project?

Program used to powder coat paint lines

Manufacturing process technology

Shop floor tech team

Mainframe legacy system to modern SAP

On shop floor

Develop system to talk to all floor machinery

Bug fixes

In the moment trouble shooting

Job shadow

Mentor and own project

Group proj with other interns

Working on the shop floor

What software is utilized most

What departments would I collaborate with

What would I be doing on a day to day basis?

Would I work with other interns

Supervisor?

Hello, my name is Chase Mulder. I am a senior at Grand Valley State University studying

Computer Science with minors in Computer Engineering and Mathematics. In the winter of

2022, I am graduating from Grand Valley and looking for positions in software and web

development. This is an exciting opportunity for me because this position perfectly matches my

skills and professional career goals.

My experiences with mathematics, engineering, and computing have led me to finding

my passion in Computer Science. Most recently this passion has grown from programming a

robot with the ability to play sports to now coding a virtual stock ticker that tracks stock

portfolios. A position at your company would allow me to learn from professionals in the latest

cutting-edge technology and further my passion. I could benefit your company with my skills

and expertise by providing new solutions for the company.

One reason you r company stands out to me is because

Looking for inperson interns, so I’m close in Grandville

Excide for in person experience

Im excited to have new experiences in my field and gain new skills

One of my skills that aligns with this position is my skill in python coding

From friends who’ve interned there, they said they liked it and the people were friendly and the whole place was a showroom floor

 Give us an example of a **goal you failed to meet**, and **how you handled the situation**.

One goal I failed to meet was making the physical board for the **virtual stock ticker**.

Our groups plan was to buy the led board and power supply and the **matrix** that controlled the LED board. Well what went wrong was, When we went to solder the **connector pins** onto the matrix, the pins for the **power supply** had a notch on one side, so It mattered which way you soldered the notch side. When I went to solder it, I noticed the **notch**, and assumed it went a certain way. Well, if you looked closely at the board, there’s a square with a notch in it and I missed that. So when My friend plugged in the power supply with the connectors the wrong way, it fried the board and only lit up a few leds. This situation was handled by changing our focus to getting the **virtual LED board** to work, Which in Java a window with a grid of 50 by 100 LEDs popped up and WE got it working to display stock prices. Looking back, I wish I had noticed the notch direction picture on the board, and the guide we were following even said it was ok to solder backwards, we’d just have to sand off the notch on the connector, but because we plugged it in backwards once. We basically sent the full 12v power to LEDS that fried, rather than if it was pluged in the right way it would have been distributed.

 Tell us about a time when **you solved a problem at your job** that wasn’t part of your job description.

At 5 guys, the **drain on the line clogged** when closing, so when we poured water on the floor to clean it, it brough up the stinky food from the drain. So to unclog the drain we tried a flange plunger. But what unclogged the drain was a special hose attackment which was a **black rubber balloon** which when inserted into the drain, ballooned up and it had a small hole, so **lots of pressure water** was forced down the drain and it unclogged.

Another time, corporate didn’t tell my manager that they were doing above the grill and fryer **grease vent cleaning**. Basically we had just closed the whole line and it was clean, then **greasy water** started pouring out of our hood vents above the grill and we couldn’t do anything about it. WE shouted at the person on the roof pouring water to stop and he did. But my manager decided let him finish, and let the opening staff clean up corporates mess. It was 1 at that point at they were still pouring water, so we went home.

 Tell us of a time when you took a **risky decision** and it didn’t pay off.

I traded in my ford explorer for a **jeep liberty** and I now hate jeeps. I hate big peg tires and you slide everywhere on ice. It had two $2000 dollar repairs just to fix transmission issues because it was all wheel, but I never used it. Ford focus great mpg.

**Question #1 - How do you accomplish tasks when under a tight deadline? Give me an example.**

I deal with deadlines by keeping a **structured calendar**

I manage my priorities of **College, girlfriend, apartment, pets and fun everyday**

I don’t like the saying “Well if it’s due tomorrow, then I’ll do it tomorrow” I’ve learned that if you **tackle projects** right away that if you get stuck it’s easier to get help in office hours than struggle for hours

And when I do get stuck my first goto is **internet forums** and youtube **tutorials** and finding designs similar to what I’m working on. I feel like almost **all questions have been asked** and it takes skill in searching and asking specific questions to google to get to what your finding.

And if it’s still not there, go back to course material and start from the beginning and reteach yourself the subject material, read the book and go to every lecture

The point of college is to give you **challenges** and the only ones that make it through **persevere** and become hard workers. They rise to the challenge and **overcome**.

Another thing college does is **teach you how to learn**. Regurgutating information is useless, unless you **understand** it and can explain it to someone else. The world needs people **cretors**, the whole goal is to progress, WE learn to **get caught up on the situation**, then **designers** **further the goal posts** and in the field of CS I feel subatomics and material engineering is going to exponentially increase memory space and processing power. That’s why I chose CS, **exponential growth baby**. Once you have skills in programming, Python, C, Java, Databases, Websites, Scripting, Web scraping, Creating servers, the **goal is to further the cutting edge technology field and make previous processes more efficient.**

MY ultimate goal is to **replace redundant medial tasks like fast food making with robots**. I think the future is moving towards robot servants like in Wall-e and I want to **design that world.**

For your company I could help with **high level engineering design** with skills **in engineering drawings**

Also, I’m very personalbe, if you couldn’t tell, Im always a good team player and If my group chooses me, I make a good leader too. A **leader leads by example** and **communicates** with his team on deadlines and project **goals**.

I chose CS over engineering because CS majors do things **efficiently**. Also I like **software over hardware.**

I’ve seen an **engineer plug his turned on robot** into his computer and **fry** his computer. All engineers are **brute force**, What I mean by this is that they will constantly try something new if they run into an error. This Is a bad approach because if you’re not thinking through what your actually testing and if that kid wasn’t trying to brute force try a bunch of things with his robot, he would have thought not to plug in a turned on robot into his computer. I made it through that **robot soccer competition by scoring a goal and 50% were weeded** out by that class.

Also, the whole time I was in mechanical engineering, we would spend all lecture crunching **hard math formulas** to solve **free body diagrams** and **forces on an object**, or **stress and strain on screws or bridges** and that **matrix math wa 6x6** long, so it was huge pages of math calculations and solving **integrals**. Then we’d get to lab and use **software** that we’d simply plug in what the bridge looked like and what it was made of, and the software **solved** all the forces for you. Same with circuits, **huge circuit problems** with **phasors** which meant **electricity** came in as a sin wave function, so the math for **solving mesh circuits** and **finding voltage** at **nodes** was hard. Then we’d create the circuit in **software and voila** it’s **solved**.

**I wish the way we learned today incorporated more software. I know it’d be a much more efficient way for me to learn.**

Engineering I programmed the soccer playing robot which **controlled ultrasonic**, **IR sensors, and switches and motors in C code**. The first two years of college for me was ME, and we used **XY books coding assignments to learn C code**. The exam had us **read in a file from excel** and **calculate average rainfall in an area.**

Then After my second year, I switched to CE because I didn’t like that **mechanical interns worked in factories** and also there’s a lot of day to day **stress** because your responsible for coming up with the right solution to hard math problems. **I job shadowed Adient** and their ME’s **created powered car seats in solid works** and as much as I liked **designing things** in solid works, it’s not like what **I liked doing programming robots.**

So as a CE for my third year, I made a **slot machine and vending machine** from scratch using logic gates and **field programmable logic gate arrays**. The slot machine was programmed to be like a casino slots with spinning reels trying to match lines and the hard part about that project was writing the **Verilog code** because you have to literally know what each **bit shift does**, meaning you have to create a **design for each outcome** of playing the slots and bit shift specific bits into registers. Another challenge was the **wiring because it was a rats nest.**

Then the **pandemic** hit and I was doing fine in CE, but I **didn’t like** **hardware**, so I switched to **CS** for software and it’s been the **best decision yet!**

I feel like I **fit in** more with CS majors because **I love technology**. Also, I’ve been on the **deans list** since switching, so the past 2 years I’ve been getting all As basically and in I love the current classes im taking more than CE classes like **thermo dnamics and fluid dynamics and electronic circuits 2,** id rather learn about **computer graphics** and create websites, and assembly language and design calculator circuits and programs to test them. And learn more about python and java. **Engineers only use C code** and miss out on how much **easier** thing are to do in **python**.

I defiantly can **debug better in C**, but typically my projects in python have been shorter because there’s only **33 keywords in python** and there’s a lot more resources online to doing things in python because **a lot more things have been done in python today than C**

Same with Java, there’s a lot more posts on stack over flow that are more recent and more related to your problem because it’s **a newer language**. You’re not going to get **a post from the 2000’s** on solving something in C, vs the much easier way doing it in Java. There’s also more libraries in Java.

**I have skills in databases too**. For the stock ticker project our data base sued the software **maria** **data base** and our **website** had user login in information and their **stock porfolios** that needed to me managed by a **database**. I also helped in setting up the **server** using **my apache** and **port forwarding to make the server global.**

I have big **priorities** that I manage. I’m going to **get through college to get my degree**, I want to **marry my girlfriend after college**, **and I want to start working at your company** because I want to sharpen my skills in the **computer science field** and work with **cutting edge technology** **creating a more efficient world**

One thing I want you to **learn about me** from this interview is that Im a **hard worker** and that I’m **a friendly team player**, and I could **bring your company fresh ideas** to the table on **digital problems** you may be facing.

Some other things I didn’t mention that I did in college was I’ve **been through 40 classes** so far. By the end of college I will have been through **10 engineering classes**, **10 gen eds, 10 math classes, and 20 computer science classes**. Im very **proud** of myself for having accomplished this and Ive got to **keep pushing until I get my degree**, then after that I will continue to keep pushing not just to pay off my debts from college, but to **better the world with these skills** ive learned from college. I;ve defidenatly **becomed hardened from college**, but I **persevere** and **keep a smile on my face** and try to **brighten my friends and teachers days** by **encouraging** them to do well on **exams** and on their **future endovors** in finding their own **internships**. I also thin my **teachers really like me** because Im always **focused** on understanding the **material** better and **I’m attention oriented to small details** and this helps because **these exams lately in these 400 level classes are thurough.**

Also, im **living on my own**. The first three years of college I worked at 5 guys over summers, but this last semester I worked and schooled and moved out of my parents and into an **apartment with my girlfriend in Grandville**. From my experience working and taking 300 level classes was hard, but I managed by working 2-3 days a week only doing morning work. So I’d go into **5 guys at 8am**, either **cook bacon**, **cut potatoe**, or **roll meat** – ladies prepped fruit – I cut **600 pounds** of potatoes every morning, and **that’s eventually why I left**. I was being **overworked** for **$13** dollars and hour and also, they started paying **old timer employees $15** and they **barely worked** and actauly **micromanaged** me into doing their work.

I was being overworked and one morning I **slipped onto my knees** and should have done workers comp, but my knees hurt for **3 months** and we’re really **bruised**

Also, I **pulled my back** from **cutting so many potatoes**, so I put my **two weeks** in there when I had **enough savings** to get me through this semester of school, Now I **need an internship** this summer in the CS field.

Another reason I want to work for HAwroth is because you’re in holland and that 20 mins from me. I’m **excited** to work in person and **meet new people!**

I like the design of your office furniture and from a friend whos interned there he said the **whole facility is a show room floor.**