**Education**

- How did you fare in high school mathematics, physical sciences and computing? Which were your strengths and which were most enjoyable? How did you rank, competitively, in these subjects?

    - My academic ambition in high school allowed me to achieve the highest, or one of the highest grades. In mathematics I was at 97%, science was at 98% and computing was around 96%. My strengths in highschool were the 2 science courses (physics, biology); however, my most enjoyable course was computer engineering. Since my hobby was/is web development I would enjoymaking multy page sites with various features and functionality – multiuser, backend, and etc.

- At high school, what leadership roles did you take on?

    - I made various clubs in highschool and even ran a successful hackathon. One of my more notable achievements was being the web developer and sponsor lead for the hackathon, gathering over 40k in prizes. There was an attendance of over 300 people from around the world. Another leadership opportunity I took on was creating the “Cometitive Programing Club.” Creating a comprehensive weekly agenda and providing specific tasks to each student to improve their weaker skills set while also culturing their strengths.

- What sort of high school student were you? Outside of required work, what were your interests and hobbies?  What would your high school peers remember you for, if we asked them?

    - I was an outgoing/focused student, allowing me to take up personal projects to improve my webdev portfolio. Instead of making small and inconsequential projects I would choose to make larger ideas that would take longer and have a positive impact on society. I would also include my friends in these project ideas to distribute the work according to their specific skill sets. This would steamline the work and make it more efficient.

- Which degree and university did you choose, and why?

    - I am currently enrolled in the IBiomed program at McMaster University, pursuing a bachelors of Honors Health Sciences and Entreprenuership. I chose this program because it is extremely versatile and allows me to pursue a career in the medical field while also strengthening my software skills.

- Please state your high school graduation results or university entrance results, along with the system used, and how to understand those. For example, in the US, you might give your SAT or ACT scores. In Germany, you might give your scores 1-5.
    - I graduated from highschool with a 4.0/4.0 GPA and after the first year of university I am at a 3.7/4.0 GPA.
- What did you achieve at university that you consider exceptional?
    - I pitched a potential startup idea to a professor and we are attempting to bring it to market.

**Web engineering experience**

- In your experience, which libraries and frameworks do you think will succeed in Web development tool sets?
    - I am most experienced with HTML/CSS/JavaScript and NodeJs – ReactJs. With this in mind, I think ReactJS has the most potential because of its versatility; furthermore, it's been public for a while so there are various pacjakes and API already customized to be used in React.
- Describe your experience of web programming - JavaScript, Typescript, React, CSS and Python in particular.
    - JavaScript - Experienced: even though I dont have any projects with the direct use of Javascript, I do have many using React Js.
    - Typescript - Experienced: Since it is just react with safety, learning it was really easy.
    - React - Experienced: I have the most experience with this framework and have many massive projects as well as simple ones. I have been developing this experience for over 7 years now.
    - Css - Experienced: I love to style and animated everything, adding hover effects, creating abstract shapes with "div" boxes. And transition effects, while keeping media queries in mind.
    - Python - Experienced: I learned python on my own and loved it ever since. I recently created a Discord bot that takes in commands and parses the searched terms for keywords that are then matched against the FAQ's and whichever one is most relevant is displayed.
- Can you provide examples of when you would use utility based frameworks (such as Tailwind CSS) and component based (such as Bootstrap)
    - I would use Utility-based frameworks ideally for highly customized designs and rapid prototyping, this basically offers low-level styling classes.
      Component-based frameworks like Bootstrap are better for when I want to be consistent, time-efficient, through the pre-designed UI components.

**Software engineering experience**

- What kinds of software projects have you worked on before? Which operating systems, development environments, languages, databases and frameworks?
    - My experience is mostly in full stack development, and my projects reciprocate that. Almost all of the projects that I have made/worked on are built on NodeJs using React. For styling I usually use StyledCompoent to have full design control over all the elements. I choose not to use tailwind or bootstrap because I try to make abstract shapes and animate them to my liking. I usually use a firebase firestore and storage bucket to save all sorts of data. Even though I know how to use and implement MongoDB, my projects are done only for convenience; however, the most recent project that I am working on uses the safety of MongoDB. All in all, my projects are usually made to target an issue in society that I find may impact people, hence the medical school matcher, the covid tracker, the clinic queue remover.
- Outline your thoughts on open source software development. Have you been an open source maintainer, and can you point to those projects?
    - I havent directly worked on any open source software projects; however, I have positive thoughts on this topic, especially because this is how technology is furthered and new innovations are made. Similar to what Tesla is doing with their open source autonomous driving software in their cars, the idea is that this initial start will lead to bigger developments.
- What is your proudest success as an engineer, or leader?
    - My proudest moment as an engineer has to be when I published a beta version of MedMatchr (medical school matcher), after devertising a bit on LinkedIn and Reddit, the visits to the site spiked to around 3000 users. I got alot of positive impressions and felt fulfilled, that my product was useful to almost 10% of the entire McMaster Universities student population.
- Outline your views on the role of an engineering manager in shaping a high functioning team.
    - The role of an engineering manager in shaping a high-functioning team is crucial. They should provide leadership, clear goals, and support to team members, promote effective communication, foster a culture of collaboration, and remove obstacles that hinder productivity. Additionally, they must balance technical expertise with people management skills, empower team members, and ensure alignment with the organization's mission and objectives.

- Describe your experience with micro-service architectures - web front ends, REST APIs, data stores, event processing and other kinds of integration between components. What are the key considerations for architecture, maintainability, and reliability in these large systems?
    - My experience with micro-service architectures encompasses designing and implementing web front ends, REST APIs, integrating data stores, and event processing. In several projects, I've adopted microservices to enhance scalability and maintainability. Key considerations include:
        - Scalability: Microservices allow for modular scaling, which is essential for handling increased loads.
        - Decoupling: Each service should be independent, making it easier to develop, deploy, and maintain.
        - Data Management: Strategies like sharding databases or using distributed data stores ensure data reliability.
        - Monitoring: Comprehensive monitoring helps identify bottlenecks or issues in real-time.
        - Event-Driven: Event-driven architectures enable seamless communication between microservices.
        - Error Handling: Implementing effective error-handling mechanisms ensures system reliability.
- Outline your thoughts on quality in software development. What practices are most effective in software teams to drive improvements in quality?
    - Quality in software development is crucial for delivering reliable, secure, and efficient applications. Effective practices include:
        - Code Reviews: Regular code reviews by peers help identify and rectify issues early.
        - Automated Testing: Implementing unit, integration, and end-to-end tests ensures code correctness.
        - Continuous Integration/Continuous Deployment (CI/CD): Automation in building, testing, and deploying streamlines the development process.
        - Documentation: Well-documented code and system architecture enhance maintainability.
        - Version Control: Using version control systems like Git helps track changes and collaborate efficiently.
        - Security: Incorporating security best practices at every stage is vital to protect against vulnerabilities.
        - Performance Optimization: Identifying and optimizing bottlenecks ensures optimal system performance.
        - Agile Methodologies: Agile practices like Scrum or Kanban promote iterative development and adaptability.

**Context**

- Outline your thoughts on the mission of Canonical. What is it about the company's purpose and goals which is most appealing to you? What is risky or unappealing? Are there any elements of the company goals that you are unsure about?
    - As a web developer with experience in various frameworks and languages, I find Canonical's mission to make open source software available to people everywhere very appealing. Canonical's commitment to open source communities and their belief in software freedom aligns with my own values as a developer. They strive to make open source software secure, reliable, and easy to use. However, the challenge lies in the vastness of the open-source community and the diversity of needs it encompasses. The risk could be in managing the balance between commercial viability and maintaining the ethos of free and open-source software. As of right now there are no company goals that I am unsure about, if there were, I would discuss them in the interview process.
- Who are competitors to Canonical, and what does Canonical need to change to be a more effective competitor?
    - Canonical's competitors include Red Hat, MontaVista Software, Docker, and HashiCorp. To be a more effective competitor, Canonical could focus on differentiating their products and services, continue to innovate in the open-source space, and perhaps leverage my web development skills to enhance their cloud and web-based offerings.
- Why do you most want to work for Canonical?
    - I want to work for Canonical because of their commitment to open source. Their work impacts a wide range of sectors, from individual users to large enterprises, providing a diverse and dynamic work environment. Plus, their global presence offers a multicultural work experience.
- Which Canonical products and services would you most like to work on?
    - Given my background in web development and proficiency in languages like Python, JavaScript, and C, I would be interested in working on Ubuntu, which is one of Canonical's main products. My experience with databases like MongoDB and Firebase Firestore could also be valuable in working on their cloud services. My skills in OpenCV might be useful in their IoT and edge computing solutions.