**What is Software Engineering?**

Software Engineering (SWE), in computer science, entails a lifecycle of different phases including design, development, testing, and maintenance. As designers and developers, software engineers work on applications, platforms, computer games, operating systems, network control systems, middleware, and so much more!

**SWE Tasks and Responsibilities**

* Designing and maintaining systems or applications
* Software Testing
* Optimizing different software in terms of speed and scalability
* Ensuring platform compatibility
* Documentation
* Contributing towards software release and updates
* Collaborating with other teams such as development, data science, marketing tech

**Challenges Faced by Software Engineers**

From time constraints to evolving project requirements, software engineers are faced with several challenges in their day-to-day tasks. Production timelines are sometimes affected by factors that are beyond the engineers’ control and are often required to adapt to any new changes enforced by their managers. At the same time, engineers have to keep upgrading the code base as the tech stack becomes outdated in comparison to new technologies populating in the market. Engineers also have to comply with security and data privacy regulations to keep their code base consistent and safe from potential vulnerabilities.

**Why do I love Software Engineering?**

I believe that Software Engineering allows me to exercise my creative and logical side in computer science. I have the ability to solve complex, real-world problems with simple and specific solutions. I would love to be at the forefront of innovation with Software Engineering. In this field, continuous learning is a key aspect to keep yourself updated with ongoing trends and collaboration with others enhances the experience and product strategy. I would love to make a positive impact on society and as a software engineer, I can become a part of a global community of professionals. I am interested in developing applications, interfaces, platforms, and communicate with both technical and non-technical stakeholders to enliven the product and provide the best user experience. A good UX is important to increase customer retention and create a positive brand image. A user-friendly interface is important to ensure cost-effectiveness and provide an edge among other competitors in the market. With an entrepreneurial spirit, I am excited to contribute to the future of software engineering by innovating and solving complex issues to create new outlets and products.

**Mark Zuckerburg**

Zuckerburg is the current CEO of Meta Platforms and helped cofound Facebook. Zuckerburg was a genius in software engineering right from his childhood. He built a local area network when he was in high school.

**Paul Buchheit**

Buchheit invented Gmail while he worked at Google. Gmail was in beta mode for five years and is now one of the top web-based email services used by people.

**Max Levchin**

Levchin was responsible for co-founding PayPal. He contributed to prevent fraud on a fintech platform called PayPal and worked on the human CAPTCHA test.

**Pierre Omidyar**

Omidyar is the founder of eBay and is one of the greatest tech entrepreneurs. Omidyar first launched an online service called Auction Web and it was named eBay in the later stages of his life.