Muhammad Jawad

Milton, ON | [LinkedIn](#) | [GitHub](#) | 647-706-8587 | j.salwati@gmail.com

TECHNICAL SKILLS

Skills: Python | Java | C | JavaScript | SQL | HTML | CSS | Unix/Linux | Android | XML | Gradle/Maven | Git

WORK EXPERIENCE

General Motors — **Remote**
Junior Software Developer — *September 2023 – Present*

- Design and implement automated test plans and establish an efficient automated testing pipeline, contributing to the overall software quality assurance process.
- Collaborate with a cross-functional team on an end-to-end data transfer project, ensuring seamless communication from vehicle onboard systems to the cloud-based back office.
- Demonstrate strong problem-solving skills in addressing complex challenges related to data accuracy, consistency, and synchronization in the context of vehicle data.
- Utilize Python to create custom automation scripts for testing and monitoring data transfer, streamlining the testing process and enhancing coverage.
- Testing and validating the data transfer process, meticulously verifying data integrity and security

McSCert — **Remote**
Software Developer Intern — *May – September 2023*

- Developed an NLP-based system using Python and PyTorch to reduce manual effort in testing ECUs of cars by translating natural language specifications into executable test cases.
- Quickly adapted to the Hugging Face library to utilize pre-trained NLP models including GPT-2 and GPT-J.
- Leveraged Agile development methodologies, specifically Scrum, to manage project timelines and presented deliverables to industry partner, Stellantis (Fiat-Chrysler and PSA).
- Developed comprehensive understanding of validation methodologies, including unit, integration, and acceptance testing, to aid in producing highly robust safety-critical products.

McMaster Automotive Resource Centre — **Remote**
Mobile Software Developer Intern — *May – September 2022*

- Researched and developed an AR powered android mobile application (Java) for indoor navigation, with a key focus in accessibility options.
- Collaborated with industry partner, Cubic Transportation Systems, to design, implement, and test the AR mobile application and acquired knowledge of current trends and best practices in application development.
- Developed proficiency in Java and ARCore framework, as well as in Junit and Postman for testing and debugging.
- Assessed, proposed, and implemented optimal pathfinding algorithms and supporting data structures to provide efficient and robust solutions.
- Utilized version control tools such as Git to manage codebase and collaborate with team members.

LEADERSHIP EXPERIENCE

McMaster University, Faculty of Engineering — **Hamilton, ON**
Teaching Assistant — *January 2023 – May 2023*

- Teaching assistant for software engineering course, focusing on software life cycle, design patterns, and implementation in Java, leading classes of 50+ students.
- Demonstrated expertise in reading and debugging code and identifying errors by grading student assignments and suggesting areas for improvement through feedback.

RESEARCH PROJECT EXPERIENCE

McMaster University, DeGroote School of Business — **Remote**
Software Researcher & Developer — *May – August 2023*

- Conducting independent research on linear optimization and its applications to self-scheduling for nurses, utilizing the simplex method and Python programming to optimize scheduling efficiency.
- Collaborating with a team of researchers to develop and refine the self-scheduling algorithm, incorporating feedback and suggestions from nursing professionals to ensure the algorithm is practical and effective.

EDUCATION

McMaster University — **Hamilton, ON**
B.Eng. Software Engineering Co-Op (GPA: 3.9/4.0)

- Relevant Courses: Data Structures and Algorithms, Object Oriented Programming (Java), Databases (SQL)