

Firas Elayan

Software Engineer

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Abu Dhabi, United Arab Emirates

About Me

Software Engineer with expertise in Agile development and proficiency in Python, Java, C, and SQL. Skilled in building robust applications and optimizing workflows through GitHub. Proven track record of delivering innovative solutions in collaborative, cross-functional environments.

Experience

Augmented Reality On-Campus Companion Application | Software Engineer *Sept 2023 - Apr 2024*

- **Developed AR-based prototype** in Unity with on-campus navigation, location tracking, and real-time event updates.
- **Optimized Firebase backend** for real-time data and authentication, supporting up to 1,000 concurrent users.
- **Authored SRS documentation detailing 50+ requirements** for system performance and stakeholder alignment.
- **Managed collaboration via GitHub** for streamlined development and version control.
- **Achieved 95.8% code coverage through 70+ tests**, ensuring AR functionality reliability and accuracy

Software Design: Development of Ride-Sharing Application | Software Engineer *Jan 2023 - Apr 2023*

- **Led 12+ brainstorming sessions**, boosting team collaboration and productivity.
- **Authored SRS document with 40+ requirements**, ensuring clear project guidelines and alignment.
- **Developed Android prototype in Java with 85% functionality**, achieving stable performance on real devices.
- **Designed scalable architecture** (PAC and repository models), supporting user growth and system expansion.

ELC Accessible Beauty Hackathon | System Designer *Feb 2023 - Mar 2023*

- **Designed AI shopping app** for enhanced accessibility, with an **estimated 28% reduction in browsing time** for disabled shoppers.
- **Researched AI API options** with Microsoft Azure, **projecting 12.5% cost savings**.
- **Analyzed industry trends** to refine project scope and pinpoint potential markets.
- **Implemented Agile methodologies**, boosting team productivity by **18%** through structured sprints.

Full Self-Driving Infrastructure | System Designer & Developer *Jan 2022 - Apr 2022*

- Collaborated with a multidisciplinary team of 5 to **design a fully self-driving vehicle infrastructure**
- **Implemented a Smart Intersection design** that enhanced traffic flow efficiency by around 23% over pedestrian-heavy designs and by 18.5% compared to traditional traffic systems, per a multi-criteria design evaluation
- **Created and optimized infrastructure plans** using engineering tools, **achieving a 50% improvement** in performance and regulatory compliance relative to alternative designs
- **Generated a Python program** to manage vehicle interactions, achieving seamless operations

Education

Bachelor of Engineering: Software Engineering | McMaster University

Sep 2020 - Apr 2024 | Hamilton, ON, Canada

- Key courses: Data Structures & Algorithms, Databases, Software Testing, Concurrent System Design, Real-Time Systems, Networks & Security, Continuous Optimization, Performance Analysis of Comp. Systems.

Skills

Hard:

Python, Java, JavaScript, Node.js, React, C, C++, Go, SQL, Django, Verilog HDL, GitHub, Kotlin, Android Studio, Shell scripting, HTML, CSS, Microsoft Azure, Agile development, Cloud computing, Networking, Computer graphics, User interfaces, Software testing, Ci/CD, Scalability, Security

Soft:

English, Arabic, Research, Analytics, Team Collaboration, Effective Communication, Adaptability, Problem-Solving, Critical Thinking, Time Management, Creativity, Attention to Detail, Conflict Resolution, Flexibility, Initiative, Listening, Organization, Work Ethic