

Omar Elasfar

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EDUCATION

Bachelor of Science in Computer Science, Software Engineering Stream (Co-op) *Expected 2026*
Carleton University *Ottawa, ON*

- **Major CGPA:** 11.75/12.0 (A)
- **Courses:** Systems Programming, Software Engineering, Operating Systems, Relational Databases, Data Structures & Advanced Algorithms, Object-Oriented Programming, Functional Programming, Discrete Structures
- **Achievements:** Minor in Statistics, Deans' Honour List 2024, Golden Key International Honour Society

SKILLS

Languages: Java, C, Python, JavaScript, SQL, HTML/CSS, Haskell, Go, Bash, R
Developer Tools: Git, Node.js, Linux, SQLite, GDB, GitHub, Jira, JSON, Scikit-Learn
Concepts: REST APIs, OOP, Machine Learning, Concurrency, IPC, TCP/UDP, Docker, Agile
Competencies: Communication, Proactive, Passion, Collaboration, Problem-Solving, Initiative, Leadership

EXPERIENCE

Android Application Tester/QA Engineer *Sep 2024 – Present*
Qurani *Remote*

- Conducted rigorous **testing** and **debugging** of an educational **Android app** by performing tests across multiple devices and versions, reporting **15+ bugs** to developers, resulting in improved functionality and reliability.
- Designed and implemented **test cases** by developing **manual** and **automated testing** procedures using **Python frameworks**, increasing test coverage and enhancing the application's overall reliability.

Computer Science Teaching Assistant *Sep 2024 – Present*
Carleton University *Ottawa, ON*

- Guided **60+** students in mastering **software engineering** by offering personalized office hours, detailed feedback, and interactive labs, resulting in a **50%** increase in coding proficiency.
- Assisted students in **troubleshooting** and optimizing **Python** codebases through targeted guidance and problem-solving strategies, prompting a **70%** reduction in error rates.

Freelance Software Engineer *Apr 2024 – Sep 2024*
stockEZ *Ottawa, ON*

- Designed and delivered a **full stack** inventory **desktop application** by utilizing **Java object-oriented** principles for **back-end** development and **JavaFX** with **CSS** for **front-end**, delivering a robust system and responsive **UI**.
- Integrated **Google API** to fetch and update data dynamically, which improved application functionality.
- Used **Git** and **GitHub** for **version control**, facilitating collaboration and continuous updates of the software.
- Conducted **unit testing** and **debugging** to enhance software reliability, decreasing technical problems by **99%**.

PROJECTS

CarMatch AI | *Python, Scikit-Learn, JavaScript, SQL, Machine Learning, HTML/SCSS* *Nov 2024 - Ongoing*

- Developed a **web application** to match users with their most suitable car based on their preferences using **artificial intelligence (AI) algorithms** to enhance the recommendation process.
- Developed a Multiple Linear Regression (MLR) statistical model employing **machine learning (ML)** techniques in **Python** to **analyze** user ratings and predict optimal car recommendations based on selected features.
- Scraped and stored real-time car data from various sources using **Python** and **SQL**, ensuring up-to-date data.
- Implemented a **user-friendly interface** using **JavaScript** for seamless interaction and dynamic content display.

MyPal | *Java, JavaScript, SQL, REST API, Twilio, Git, HTML/CSS* *Sep 2024 - Ongoing*

- Founded and developed a **full stack application** to address a consumer need for a text-based reminder software while providing a user-friendly web app using **JavaScript** and **HTML/CSS** for the **front-end**.
- Built a **back-end** using **Python**, integrated **Twilio** service for mobile notifications, and incorporated time, geolocation, and mapping **APIs** to enhance location-based accuracy and improve **user experience**.
- Designed and implemented an **SQL database** to store user information, ensuring enhanced data management.

Hack-the-Tunnels 2024 | *TypeScript, React, Prisma, Express, Git, Linux, HTML/SCSS* *Oct 2024*

- Integrated **front-end** services built with **React** and **TypeScript** with **back-end** services using **Express** and **Prisma**, resulting in a fully functional application for user login and schedule management.
- Implemented **RESTful API** routes for email and SMS services while using **Git** for collaborative development.

Blocked List Data Structure | *Java* *Jun 2024*

- Designed a new **data structure** using **Java** and complex **algorithms** concepts, successfully implementing core list functionalities such as **add**, **remove**, **set**, and **get** efficiently.
- Achieved a performance improvement of over **50%** in dynamic list operations compared to traditional list implementations by creating optimal **add** and **remove algorithms**.