Faiza Rahman

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PROFESSIONAL SUMMARY

Software Engineer with expertise optimizing data workflows, building scalable applications, and enhancing system efficiency. Skilled in Python, Django, and SQL, with experience in geospatial mapping, data migration, and APIs

EDUCATION

Bachelor of Science in Computing Science   **Anticipated completion - Dec 2025**

University of Alberta   Edmonton, AB

CFA Level 1 Candidate   **May 2026 Exam**

WORK EXPERIENCE

Software Development Intern   **Edmonton, AB**

Government of Alberta - Ministry of Environment and Protected Areas   *Sep 2023 – Aug 2024*

- Created and maintained Django application for **NoSQL database with ~ 400 lines of data for 3 applications**
- **Streamlined user workflows by ~7.5x** by simplifying high frequency actions and improving system adaptability
- Integrated advanced **Excel scraping and metadata handling** for full data compatibility to accelerate data access **~2x faster**
- Automated **web scraping with Beautiful Soup for database updates**, maintaining records in 4 databases for 2 agencies.
- Automated **calculation accuracy tests** and upload with Openpyxl, Win32, and Python for new features to unify all submissions information from **336 sources to a single source of truth**
- Constructed and implemented **ETL processes** for Excel to JSON and TOML data migration of **300+ profiles** to standardize information from 2018 to 2024 and **enabled compatibility with future regulations**
- Developed a **Leaflet-based** tool to streamline geospatial mapping across **~600 locations**, eliminating manual Google Earth entries with an **automated solution**
- Implemented checks and detailed failure point displays within **~5,700 KML files** to ensure database consistency
- Achieved **~70% test coverage** within applications by expanding testcases to ensure system reliability
- Created seamless form **recreation from databases** to Excel, improving desktop review efficiency

PROJECT EXPERIENCE

Full Stack Developer   **Edmonton, AB**

Distributed Social Networking Platform   *Sept 2024 - Dec 2024*

- Developed a **decentralized social network platform** enabling post creation and interaction across 6+ nodes
- Utilized Django and Python, featuring **30+ custom API** endpoints documented with **Swagger** for interoperability
- Implemented secure communication via **HTTP Basic authentication**, local user authentication, **cookies and tokens**
- Deployed on Heroku with PostgreSQL for **cloud-based accessibility** and real-time interaction.
- Configured **continuous deployment** with GitHub Actions, **automating testing** and deployment.

Software Developer in Test   **Edmonton, AB**

Tartan Security System Project   *Jan 2025 - May 2025*

- Developed **CI/CD pipeline with GitHub Actions** and **Docker** to automate build validation across environments
- Integrated static analysis tools, **ErrorProne, PMD, SpotBugs, and SonarQube** to evaluate code reliability
- Automated unit and integration testing achieving **~80% line coverage with JaCoCo**, improving defect detection and regression prevention
- Designed and executed **A/B testing workflows** to benchmark feature performance and assess quality impact
- Reduced **manual QA time by ~60%** by automating validation tasks and consolidating QA reports into unified dashboards
- Collaborated with developers to triage test failures, resolve code quality issues, and enforce maintainability standards

SKILLS

SQL | Java | C/C++ | Python | Linux | HTML | CSS | JavaScript | ETL Pipelines| Design | Docker | SonarCube | A/B Testing | CI/CD