Raman Saparkhan

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Education

- **Carnegie Mellon University** — Doha, Qatar
  Bachelor of Science in Computer Science — *Aug. 2021 – May 2025*
  - **CGPA: 3.64, Dean's List**
  - **Relevant Coursework:** Distributed Systems, Functional Programming, Machine Learning, Computer Systems, Imperative Programming & Data Structures, Discrete Maths, Linear Algebra, Calculus in 3D

Experience

- **Amazon Web Services (AWS)** — Seattle, WA, USA
  Software Engineer Contributor — *Mar 2023 - Present*
  - Proposed robust and efficient software solutions for the **OpenSearch** project while actively participating in the writing audit and guides resulting in increased contributor engagement.
  - Integrated poetry into project dependency management, re-designed test suites and added support for local APIs resulting in **10%** project load performance boost.
  - Selected as a featured speaker at **OpenSearchCon 2023**, presenting on the transformative journey through the College Contributor Initiative (**CCI**) experience.
- **Qatar Computational Research Institution** — Doha, Qatar
  Software Engineer Intern — *Dec 2022 - Mar 2023*
  - Developed and tested a cross-platform mobile app for business using **Flutter** and **Android Studio**.
  - Improved functionality and performance through the implementation of **6** new technical features.
  - Engineered login page refreshing & redirecting feature, conducted automatic & manual tests and debugged functionality issues.
  - Implemented version control and collaboration using **Azure DevOps**, reducing code conflicts by **23%**
- **Carnegie Mellon University, CS department** — Doha, Qatar
  Course Assistant — *May 2022 - Nov 2022*
  - Assisted professor teaching course material via office hours, 1:1 sessions and mentor meetings.
  - Mentored 6 students throughout their final projects,leading to special recognition from the instructors.
  - Developed individual performance strategies, resulting in high course grades for over 10 students.

Projects

- **Real-time Stock Predictor** | *Python, Jupyter, Selenium, Pandas, Scikit-learn*
  - Increased the accuracy of data by **35%** by employing **Selenium** for direct data scraping and extraction.
  - Implemented multiple machine learning models, achieving **82%** precision on a mid-sized dataset.
  - Made a complex analysis of model strengths & weaknesses, suggesting improvements and directions.
- **FileStack** | *Java, Java RMI, TCP/IP*
  - Engineered a Distributed File System (**DFS**) in Java to address storage scalability challenges and enable clients to perform file operations on remote servers.
  - Enhanced client-server communication using Remote Method Invocation (**RMI**), concurrency and multi-threading, improving system's reliability and performance.
- **FEHRIS** | *Dart, Flutter, Android Studio, Azure DevOps*
  - Developed a productivity app, to organize URLs, documents, notes, and media files using tags and categories pipelining data retrieval across multiple devices.
  - Implemented a robust tag and category system, leading to a performance improvement of **12%**.
  - Migrated the app to null-safety on **Flutter**, improving app stability by **20%**.
  - Ensured the app met industry standards for quality and security through comprehensive testing and debugging processes.

Programming Skills

- **Languages**: Python, C++, Dart, Rust, Java, HTML, CSS, JavaScript
- **Tools**: Git, Selenium, Android Studio, HTTP, Docker, Pandas, OpenCV
- **Technologies**: Flutter, Azure, AWS, Scikit-learn