Kunalpreet Matharu

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Experience

Software Engineer Intern — May 2023 – Aug 2023
TD Bank — *Toronto, ON*

- Developed **RESTful APIs** with **Java Spring Boot** for a booking app, improving efficiency by **40%** through optimized slot management and authentication.
- Engineered functional, end-to-end, and unit test cases using **JUnit** and **SpringBootTest**, achieving **95%+** coverage and integrating into Jenkins/Bitbucket CI/CD pipelines.

Co-op Software Engineer, AI Platform — Sept 2022 – Apr 2023
Kinaxis — *Toronto, ON*

- Streamlined data transfers from **DBFS** to **GCP** and **Azure** Storage using **Scala** and **Spark**, resulting in a **117%** improvement in data retrieval rate.
- Automated deployment and testing on **Azure** using **Helm**, **Kubernetes**, and **Docker**, improving efficiency by **48%**.
- Performed **ETL** on thousands of data points for quantitative analysis and ML model training, using **Apache Hive**, **SQL**, and **Python**.
- Worked with senior developers to redesign authentication with **Auth0**, enhancing security and improving efficiency by **54%**.
- Developed **React**-based web features, increasing user data analysis efficiency on the AI platform by **15%**.

Software Engineer Intern — May 2022 – Aug 2022
TD Bank — *Toronto, ON*

- Developed over **100** automated testing scripts for web applications using JMeter and Postman.
- Performed data analytics on testing results, collaborating with developers to decrease average loadtime by **10%**.
- Built an automated daily testing framework with **Selenium**, reducing test time by **65%** and improving accuracy by **15%**.

Education

McMaster University — Sept 2019 – Nov 2024
B.A.Sc. in Computer Science with co-op — *Hamilton, ON*

Relevant Coursework: Algorithms and Data Structures, Software Development, Operating Systems, Computer Networks, Software Testing, Web development, Compilers

Projects

FoodBanks | *JavaScript, ReactJS, NodeJS, MongoDB, ExpressJS, Auth0, Google Cloud API* — Mar 2024

- Developed a full-stack web application to connect organizations involved in food rescue.
- Implemented user identity verification and access management using **Auth0**.
- Designed and developed path routing for pick-up and delivery operations using the **Google Routes API**.

GameDB | *JavaScript, CSS, EJS, NodeJS, MongoDB, ExpressJS, Git, Bootstrap* – kunalpreet/GameDB — Jan 2023

- Created a full-stack web application for sharing and discussing video games.
- Provided user authentication and authorization using **PassportJS**
- Utilized **Mapbox** and **Cloudinary APIs** to display map of sellers' location and upload images

Technical Skills

Languages: Java, Scala, Python, Go, C/C++, MySQL, Haskell
Web Development: JavaScript, HTML5, CSS, TypeScript, React, NodeJS, Express, Django
Tools: MongoDB, FastAPI, Google Cloud API, Git, Docker, Kubernetes, Databricks, Azure, Jenkins, BitBucket