

Mehr Sharma

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EDUCATION

University of Waterloo

Bachelor of Applied Science in Computer Engineering (Graduated with distinction)

Waterloo, ON

Sept. 2019 – May 2024

EXPERIENCE

Software Engineer I

Intuit, Inc.

May 2024 – Present

Toronto, ON

- Migrated core tax calculation service behind AWS API Gateway, implementing authentication and error handling to **secure 100% of incoming client-side requests** using Spring and Java
- Identified inefficiencies in deployment processes and created Splunk dashboards to track and visualize key failure metrics, allowing developers to **monitor system performance and reduce troubleshooting time**
- **Designed test plans and developed documentation** used by cross-functional teams to facilitate an intensive bug hunt, ensuring the robustness of services amidst frequent and substantial deployments
- Developed **full-coverage integration tests** using Selenium and JUnit to simulate production-level tax flows

Software Engineer Intern

Intuit, Inc.

Sept 2023 – April 2024

Toronto, ON

- **Developed full-stack components** with a responsive design for core TurboTax Online product using Java and SpringBoot with a proprietary in-house frontend language to improve user experience for do-it-yourself tax returns
- Initiated development to restructure CI/CD pipeline used by major repositories to incorporate security scans on PR builds, **resolved multiple high-vulnerability security defects**
- Implemented validations to identify recurring errors and saving opportunities in tax returns using C# and XML

Software Engineering Intern

Uplift, Inc.

Jan 2023 – April 2023

Toronto, ON

- Created a component in infrastructure migration to **process \$130+ million annually** in loan settlements using AWS lambda functions in Python, integrated with AWS S3 and EventBridge
- Designed a batch job to generate CSV reports on over-settled loans using Python and S3, **identifying over \$2.2 million** in excess funds monthly
- **Led frontend development, cross-team communication, and code review** using Agile methodologies for a new internal tool to manage and modify virtual credit card details using React, Typescript, and Python

Software Engineering Intern

Uplift, Inc.

May 2022 – Aug 2022

Toronto, ON

- Enhanced autopay capabilities for **60k+ users** by creating a multi-component flow using React with Typescript and Redux for state management
- **Independently built an end-to-end tool** to monitor and filter user communications, creating customized Material UI frontend components and new API endpoints using AWS Lambda, deployed with API Gateway
- Implemented an internal tool to allow developers to self-manage permissions by designing AWS lambda functions and endpoints in Python integrating with **AWS Cognito and DynamoDB**
- Generated New Relic and PagerDuty alerts using Python, **improving client-side error detection by 50%**

PROJECTS

Deep Learning Insulator Inspector

Python, Keras, React Native

- A mobile/web app created with React Native with a convolutional neural network backend that detects defects in high-voltage electrical insulator prototypes with a 99.6% accuracy through image uploads

Dino-Run CLI

Rust

- A clone of Google Chrome's offline game implemented as a terminal interface. Developed functions to track character movement and physics using Rust for a smooth and responsive user interface

BrewBuddy

Java, Kotlin

- A mobile app designed to connect coffee lovers with local sustainable businesses, provide custom recipe recommendations, and provide a marketplace for specialized equipment

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, Typescript, HTML, SQL, CSS, C++, C

Frameworks: React, Vue.js, ReactNative, Redux, Node.js, jQuery, Git, Spring

Developer Tools: Amazon Web Services (AWS), Jenkins, JSON, SumoLogic, Cloud/Serverless Models, Microservice Architecture