Ethan Sum

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Technical Skills

Languages | C#, Python, JavaScript, PHP, HTML/CSS, SQL, Bash, C, Java
Frameworks/Technologies | EntityFramework, Angular, React, Jenkins, SQLServer, Django, FastAPI, JQuery, Git, Bootstrap, JavaFX, Figma,

Work Experience

University of Toronto, Facilities & Services | Toronto, Ontario *May 2024 - Aug 2025*
Process Automation Engineer, F&S IT

- Developed and maintained internal UofT applications using C# with Entity Framework Core and Angular, improving administrative efficiency and user experience
- Designed and optimized automated nightly tasks to extract and process critical SAP data using C# EF Core, supporting internal UofT operations
- Implemented CI/CD pipelines in Jenkins to automate build, test, and deployment processes for DEV and QA environments, significantly streamlining developer workflows

Royal Bank of Canada | Toronto, Ontario *May 2023 - Dec 2023*
Developer, Quality Engineering Experience

- Upgraded and managed package dependencies for an in-house Test Automation framework, resulting in improved performance and security. Engineered several enhancements and bug-fixes with the Django framework to optimize user experience.
- Participated in a POC for the GenAI code assist tool CodeWhisperer, testing its capabilities in unit test generation
- Analyzed SonarQube logs to determine root causes of SonarQube failures on RBC's in-house CI/CD pipeline. Played a key role in reducing SonarQube failures as part of a broader initiative to consolidate SonarQube instances across RBC.

Education

University of Toronto *2021 - 2026 (Expected)*
Bachelor of Science, Computer Science and Mathematics + PEY Co-op

- GPA: 3.84 / 4.0
- Relevant Coursework: Software Design, Software Tools and Systems, Software Engineering, Programming on the Web, Intro to Databases, Intro to Machine Learning, Principles of Computer Networks, Data Structures and Analysis, Intro to Information Security, Computer Organization, Probability and Statistics

Technical Projects

Microservice Load Balancer | Java | PostgreSQL | Docker | Nginx Jan 2024 - Apr 2024
Microservices Assignment / Intro to Software Engineering

- Implemented a microservices-based system in Java that performed tasks according to assignment specifications
- Horizontally scaled all services using Docker and Nginx to spread workload amongst several lab machines
- Successfully parsed large workloads reaching speeds greater than 250 requests per second

City Machine Learning Classifier | Python | Jupyter Jan 2024 - Apr 2024
CSC311 Machine Learning Group Project / Intro to Machine Learning

- In collaboration with 3 others, created a machine learning classifier model that predicted a city based on survey responses
- Placed top 6 in the entire class using a linear regression model on an unseen test set
- Engineered data preprocessing pipelines like feature encoding and normalization to improve accuracy

Symposium Application | Python | React | Git | Agile Jan 2024 - Apr 2024
CSC301 Final Project / Intro to Software Engineering

- Worked alongside 6 other developers, using React, Python, Postgres, and Git to create an educational classroom solution, enhancing teacher and student connection
- Developed several microservices using Python FastAPI
- Engineered several features and enhancements over the course of 4 sprints following Agile methodologies