

# Anshul Agrawal

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## Work Experience

### Lorica Cybersecurity

Toronto, ON

SOFTWARE ENGINEER | DJANGO, C++, AUTH0, STRIPE, TERRAFORM, HELM, AZURE, CELERY, RABBITMQ, NGINX

Jul. 2023 - May. 2025

- Developed and maintained a **Django backend API** integrating **Auth0, Stripe, Azure, HubSpot, and MySQL** to support user management, billing flows, and static/model asset delivery.
- Created scripts for **infrastructure provisioning** and **deployment automation** using **Terraform, Helm, Vault, Azure CLI**—significantly reducing developer overhead and slashing deployment times by **71%**.
- Led the development of billing components including subscription plans, usage metering, invoicing, tax handling, and analytics—achieving **98% accuracy** and real-time customer invoicing.
- Integrated proprietary encryption algorithms and workflows from internal R&D into backend services.
- Optimized API endpoints and pipelines through query tuning, caching, and gateway configuration—improving response times by **47%**.
- Collaborated with cross-functional teams to gather requirements, and independently identified improvement areas, defined tasks, and delivered backend features end-to-end.

### Goldman Sachs

Toronto, ON

SOFTWARE DEVELOPER INTERN | PYTHON, JAVA, GO, NGINX, ENVOY

Jun. 2022 - Aug. 2022

- Used **Java and Go** to bring **Envoy** into the API management platform improving performance by **25%**
- Researched API reverse proxies and service proxies that fit with current goals and service architecture.
- Created proof-of-concepts using different configuration types of Envoy proxy and created custom configuration types.
- Designed a config generator that converted OpenAPI specifications to Envoy configs and dynamically updated Envoy.
- Enabled easier API provisioning on Envoy by passing of a simple OpenAPI specification.

### University of Toronto, Dept. of Computer Science

Toronto, ON

RESEACH ASSISTANT | PYTHON, PYTORCH

May. 2022 - Aug. 2022

- Supervisor - Prof. Sebastian Jaimungal
- Optimized **Functional Principal Component Analysis**. via hyperparameter tuning.
- Implemented **Dynamic Conditional Correlation GARCH** models for covariance prediction and sample path simulation.
- Created data visualizations for estimating and understanding the authenticity of the simulated sample paths.

TEACHING ASSISTANT | SYSTEMS PROGRAMMING · INTRO TO COMPUTER SCIENCE

Jan - May 2021 & 2022

- Led a weekly lab for 30 students in learning foundational concepts of **C programming and Systems programming**.
- Led a weekly tutorial for 40 students. Created working demos in object-oriented programming using Python.
- Corrected student assignments, tests, and final exams. Held weekly office hours.

### Netcore Cloud

Mumbai, India (Remote)

SOFTWARE DEVELOPER INTERN | PYTHON, RUST, AWS, KIBANA

May. 2021 - Aug. 2021

- Implemented REST API for bank transaction, and fraud prevention app notifications. Used **AWS Lambda, API gateways, and Go**.
- Reported Performance Monitoring stats revealing expensive operations. Used **Elastic APM and Kibana**
- Wrote client and developer side API documentation enabling client-side IT to easily create http requests reducing developer on-boarding time.
- Built and deployed a Log-Parser to parse every new log file and report rogue clients. **Blacklisted 400 clients a day**

## Education

### University of Toronto

Toronto, Canada

COMPUTER SCIENCE SPECIALIST · STATISTICS & MATHEMATICS MINOR · HONOURS BSC

Sep 2019 - May 2023

- Focus in **Artificial Intelligence and Computer Vision**.
- **GPA - 3.87 / 4.00 (Dean's List Scholar)**
- Relevant courses:
  - Software Design
  - Intro to Databases
  - Operating Systems
  - Neural Nets and Deep Learning
  - Algorithm Design & Analysis
  - Data Analysis I & II

## Skills

**Languages** Python, Java, C, C++, SQL, Bash, R, TypeScript

**Libraries/Frameworks** Django, Celery, Redis, RabbitMQ, GraphQL, Nginx, PyTorch, OpenCV, NumPy

**Tools** Git, Terraform, Helm, Docker, Kubernetes, Jenkins, Figma

**Services** Stripe, Auth0, Vault, HubSpot, Twilio, AWS, Azure, MySQL