

# Anshul Agrawal

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## Skills

**Languages** Python, Java, C, C++, Go, SQL, Bash, R, TypeScript, HTML, LaTeX  
**Technologies** PyTorch, OpenCV, Django, Docker, BitBucket, MySQL, AWS: Lambda, API gateways, EC2, GCP

## 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:
  - Intro to Artificial Intelligence
  - Intro to Databases
  - Operating Systems
  - Neural Nets and Deep Learning
  - Algorithm Design & Analysis
  - Data Analysis II

## Work Experience

### Lorica Cybersecurity

Toronto, ON

SOFTWARE ENGINEER

Jul. 2023 - Present

- Developing and managing the backend for the product.
- Create and proof design proposals
- Python, Typescript, C++, Django, Docker, AWS, GCP

### Goldman Sachs

Toronto, ON

SOFTWARE DEVELOPER INTERN

Jun. 2022 - Aug. 2022

- 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.
- Integrated Envoy into existing API management platform architecture using Java and Go.
- Created 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.

### Department of Computer Science, UofT

Toronto, ON

RESEACH ASSISTANT

May. 2022 - Aug. 2022

- Supervisor - Prof. Sebastian Jaimungal
- Understood existing FDA and hyper-parameter tuned existing FPCA.
- Researched and Implemented DCC-GARCH models for covariance prediction and sample path simulation.
- Created data visualizations for estimating and understanding the authenticity of the simulated sample paths.

### Department of Computer Science, UofT

Toronto, Canada

TEACHING ASSISTANT - CSC209 · CSC104

Jan - May 2021 & 2022

- Held weekly labs for 30 students in learning foundational concepts of C programming and Systems programming.
- Led a weekly tutorials for 40 students. Helped 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

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

## Projects

### Algorithmic Trader

PYTHON, BASH

May. 2021 - Present

- Devised an original strategy using popular indicators, hidden markov models, and brownian motion.
- Created an end-to-end autonomous system that fetches data, manages the database, evaluates strategies, and sends alerts to a discord server
- Setup a cron that parses the alerts and places orders using an online broker API.