Alexander Cooper

Backend Engineer

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Languages	Databases	Tools/Frameworks		Libraries
Javascript/Typescript	MySQL/PostgreSQL	Linux/Bash	Serverless Architecture	Tensorflow
Python	Redis	Git	NodeJS	PyTorch
Java	DynamoDB	Docker/Kubernetes	HTML/CSS	SciKit-Learn
Racket	Snowflake	AWS/Google Cloud	React	NumPy
	Excel	Playwright/Selenium		Matplotlib

Relevant Work Experience

Software Engineer at Flexport (Via sale of Shopify Logistics Division)
Toronto | 2023

- Architected and implemented a custom canary deployment system using serverless architecture on AWS, enhancing the team's ability to roll out updates with increased confidence and minimise risks. Involved collaboration with the organisation's platform team on changes to our core CI/CD infrastructure.
- Spearheaded the development of custom continuous integration testing tools, optimising the team's testing workflow.

Software Engineer at Shopify (Via Acquisition of Deliverr)
Toronto | 2022 - 2023

- Conducted comprehensive stress testing of team services to ensure scalability and performance under increased Black Friday traffic.
- Collaborated on the integration with Shopify's custom Warehouse Management System API, orchestrating the transition to an event-driven architecture.
- Engineered and deployed a customised Cognito based authentication system crafted to meet the team's distinct security requirements. Later adopted as a best practice org wide.
- Achieved promotion due to strong performance.

Software Engineer at Deliverr
Toronto | 2021 - 2022

- Collaborated on the development of a common API for multiple Warehouse Management Systems. Adhered to RESTful principles and industry best practices.
- Pioneered a repository of scripts automating common on-call tasks, significantly reducing support ticket volume
- Facilitated knowledge transfer and onboarding through well-structured and detailed documentation, supporting the team's efficiency and adaptability during periods of growth.

Junior Machine Learning Engineer at Yaar
Toronto | 2021

- Worked on a fast paced, agile and small team at a startup developing an AI personal assistant.
- Delivered our app's integration with Uber. Involved modeling, training, testing and deployment of various ML models.
- Stayed up to date and implemented current research in deep learning, NLP and vision.
- Employed test driven development best practices.
- Worked extensively with FastAPI and node.js to build internal app servers.

Projects

Recreation of Self-Learning Monte Carlo Methods
Tools: Python, NumPy, Scikit-Learn

- Developed software as part of a small team.
- Wrote an implementation of algorithms presented in a scientific paper.
- Used a linear regression model to optimize a Monte Carlo simulation for a computational physics model.

Education

Bachelors of Science, Physics. University of Waterloo
2020

- Relevant Courses: Machine Learning in the Physical Sciences, Computational Physics I/II
- Varsity Track and Field Athlete