Trevor J. Yao

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Experience

Sun Life Financial Waterloo, Canada   May 2021 - Aug 2021
Data & Analytics Engineer Co-op

- Developed custom audio ingestion and transformation application using multithreaded Python microservices containerised on Kubernetes, handling over 3 TB/month of data, facilitated via Kafka & S3.
- Created Spark & Sagemaker audio transcription ML models, reducing processing times by 35%.
- Spearheaded CI/CD pipelines (unit, integration, & load testing) targeting Big Data applications, decreasing deployment times by 25 minutes per environment.
- Engineered Splunk for automated service logging and management.

Sun Life Financial Toronto, Canada   Jan 2021 - Apr 2021
DevOps Engineer Co-op

- Led architecture and development of generalized Jenkins-based SQL/PostgreSQL pipeline targeting multiple deployment environments, accelerating existing deployment procedures by over 30 minutes per environment.
- Pioneered department standards for database deployments focused on simplicity and speed.
- Created automated JIRA and Microsoft Teams integration for new & legacy tasks, bringing procedures inline with Agile methodology, reducing human workload by 40%.

CIK Telecom Toronto, Canada   May 2020 - Aug 2020
Software Developer Co-op

- Lead full-stack developer of an International job application and management web app using the ASP.NET Core Framework, increasing recruitment spread by 25%.
- Wrote SQL scripts for managing company data, including sensitive data of over 300,000 customers.
- Developed a new company web app and REST API for organising inventory based on previous order trends using multivariate regression analysis.

Projects

Crunchy Containers Suite   Jun 2021
Containers for Orchestrating PostgreSQL on Kubernetes

- Open-source project by Crunchy Data.
- Contributed adaption of Crunchy Postgres Docker image to run as a Kubernetes StatefulSet for a highly available Postgres database instance, allowing for near instant disaster recovery.

smbprotocol   Jun 2021
Python SMBv2/v3 Client

- Open-source project contribution; fixed fatal race condition during SMB socket shutdown.

vm   Dec 2020
Lightweight vim-like Text Editor

- vim alternative with 60% reduction in memory usage. Written in standard C++ with self-written libraries, designed for portable use on any low powered *NIX embedded systems.
- Supports all common vim commands, with C/C++ syntax highlighting, unlimited undo, nested multipliers and movements, and text searching all supported.

Education

University of Waterloo Waterloo, Canada   Sep 2019 - May 2024
Honours Bachelor of Computer Science (AI Specialisation); Minor of Pure Mathematics (3A Term)

- Dean's Honours List - Faculty of Mathematics (All Terms).
- 92% Major Average (4.0 GPA).

Skills

Languages: C/C++ • Python • C# • Groovy • JS • SQL • PostgreSQL • Scala • Bash
Tools: AWS • Docker • Kubernetes • Spark • Splunk • Jenkins • Ansible • git