Miranda Guo

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Skills

Languages: C++, C, Python, Java, JavaScript, HTML/CSS, SQL, R, Bash, Pearl
Libraries/Frameworks: NumPy, Pandas, NLTK, Scikit-Learn, FastAPI, React.js, Node.js, Spring Boot, Flask
Tools/Systems: Git, Docker, Kubernetes, Jenkins, AWS, Redis, Linux/Unix, MacOS

Experience

Handoffs Jan 2024 – Present
Machine Learning Data Engineer Intern *San Francisco, CA*

- Developed a public data augmentation application using **FastAPI** and **Redis** to verify, cache, and augment contacts in CRM databases with public data scraped from LinkedIn profile pages
- Benchmarked over **2000 contacts** from Sendoso's Salesforce database using **OpenAI's text embedding model**, achieving over **85% accuracy**

Constant Contact May 2023 – Aug 2023
Software Engineering Intern *Waterloo, ON*

- Assisted the development of **Java** web applications for email services, establishing seamless **JDBC** connectivity to the **Cassandra database** and maintaining up-to-date **Maven** dependencies
- Enhanced **CI/CD pipelines** using **Jenkins**, optimizing tests to **reduce deployment times by 20%**
- Supported the email application migration from **Oracle** to **Corretto**, **cutting costs by $14,985/month**
- Containerized multiple customer-facing applications and back-end microservices using **Docker** and **Kubernetes**, automating deployments to testing and production environments in **Amazon EKS**

Intel Corporation Sep 2022 – Dec 2022
Software Developer Intern *Toronto, ON*

- Contributed to Intel's FPGA AI Suite, a cutting-edge technology for optimizing AI inference using popular **deep learning** frameworks including **TensorFlow**, **PyTorch**, and **Keras**
- Conducted extensive performance profiling and benchmarking to the AI Suite's **C++ compiler**, enabling data-driven decision-making and facilitating continuous improvement to its performance and efficiency
- Compiled and tested several **convolutional neural networks** (i.e. ResNet-50, MobileNet v2, YOLO v3) using the Inference Engineer API, identifying up to **10 unsupported network layers** on the FPGA
- Debugged and refactored **Python** scripts for synthetic graph generation, **resolving 100+ test failures**

Projects

IMDb Review Sentiment | *Python, NLP, Scikit-Learn, NLTK, NumPy, Pandas, Git*

- Conducted ssentiment analysis using **IMDb's 50K movie reviews** dataset to train and access ML model fits
- Leveraged **NLP** techniques (**tokenizing**, **stemming**, **stop-word removal**) to preprocess the text data
- Performed data evaluation of various **Naive Bayes Classifiers** using **Scikit-Learn**, achieving **accuracy and F1 scores of over 80%**

AccChecky | *Python, Flask, WAVE API, Taipy, Git*

- Developed a website accessibility checker using WAVE API, capturing up to **110 accessibility issues**
- Showcased metrics returned from the **JSON** data through graphical charts using Taipy **Python** library

The Settlers of Catan | *C++, Git*

- Implemented **object-oriented programming** practices using **C++** to build the Settlers of Catan game
- Applied **data structures** to replicate player-tracking, resource distribution, and card expansion features

Education

University of Waterloo Sep 2021 – Apr 2026
Candidate for Bachelor of Computer Science *Current GPA: 3.72/4.0*

- **Courses:** Data Structures, Algorithms, Databases, OOP, Compilers, Operating Systems
- **Awards:** René Descartes National Scholarship ($18K), President's Scholarship of Distinction ($2K)