Kevin Wei

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EDUCATION

University of Waterloo

Waterloo, ON | 2022 - Expected 2026

MAJOR IN COMPUTER ENGINEERING, HONOURS, CO-OP PROGRAM Named to Dean's Honour List (4.0 GPA)

SKILLS

Languages: Python, Java, JavaScript, TypeScript, C/C++, SQL

Technologies: Flask, PyTorch, FastAPI, Pandas, PyMongo, Spring Boot, React.js, Node.js, Vue.js, Nuxt.js

Developer Tools: MongoDB, MySQL, GCP, AWS, Hugging Face, JupyterLab, Docker, Selenium

WORK EXPERIENCE

ML ENGINEER | CHARTD

Ottawa, ON (Remote) | May 2024 - Present

- Developed and fine-tuned Google **Flan-T5**, Meta **Llama** and other LLMs with **PyTorch**, optimizing various **NLP** tasks for Business Intelligence by improving classification accuracy by **17%** and summarization ROUGE scores by **19%**.
- Leveraged AWS SageMaker, S3 and ECR for model training and data control, achieving 40% reduction in overall training time and enhancing deployment efficiency.
- Generated comprehensive training data with **Pandas**, referencing **Hugging Face** models and datasets to accelerate preprocessing time by up to **50%**.

FULL STACK DEVELOPER | CHARTD

Ottawa, ON (Remote) | Sept 2023 - Dec 2023

- Worked on a Business-Intelligence platform built atop NLP models to navigate financial data evaluations.
- Implemented a data ETL pipeline with Python, writing a custom router with 4 async FastAPI endpoints to batch process 10,000+ user data points into MongoDB with less than 3 seconds of latency.
- Designed a Data Management page with **TypeScript** and **Vue.js**, letting users customize data transformation.
- Enforced data governance by creating robust **Pydantic** models that the language models infer to generate response.

WEB APPLICATION DEVELOPER | CHARTD

Ottawa, ON (Remote) | Jan 2023 - Apr 2023

- Developed a financial data management tool using **Vue.js** for multi-million dollar Canadian Defence contracts.
- Abstracted financial data from **JSON** to **TypeScript** objects for display in Tables, Graphs, and Charts.
- Implemented CRUD interfaces used in 50+ instances throughout the app, using Cypress for End-to-End Testing.

PROJECTS

EXPENSE TRACKER □

PYTHON, REACT.JS, FLASK, JAVASCRIPT, PANDAS, GOOGLE CLOUD PLATFORM

- Developed a mobile-friendly expense tracking web app with **React.js** and **Python**, along with integration of **Google Cloud Platform** and Google Sheets.
- Utilised **Pandas** to format and aggregate thousands of transaction data points, and employed **Axios** to transmit this data via POST/GET requests to the app's backend API service.
- Designed a RESTful **Flask** API that performs token-based stateless authentication by exchanging **JSON Web Tokens** (JWT) containing HS256 encrypted user access tokens.
- Integrated Google Login with **OAuth 2.0** credential authentication to access Google Sheets API by verifying tokens with Google Authorization Servers.

SIMPLE SHOP

JAVA, H2, JSP, SPRING BOOT, SPRING MVC, HIBERNATE, MAVEN

- An e-commerce website developed with Java, JSP, and Spring Boot for buying and selling second-hand items.
- Configured a database with **H2 Database Engine** to store user info and items, which are accessed with **HQL** queries.
- Applied the MVC architectural pattern with **Spring MVC** for ease of organization and development.