

Kevin Wei

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EDUCATION

University of Waterloo

Major in Computer Engineering | GPA: 4.0 - Dean's Honour List

Relevant Courses: Data Structures and Algorithms, Concurrency, Object-Oriented Programming

Waterloo, ON

Sep 2022 - Apr 2026

SKILLS

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

Frameworks/Libraries: Flask, FastAPI, Pandas, PyMongo, PyTorch, Spring Boot, React.js, Node.js, Vue.js, Nuxt.js

Technologies: AWS, GCP, Azure, Kafka, PostgreSQL, MySQL, MongoDB, Terraform, Kubernetes, Docker, Selenium

WORK EXPERIENCE

AI Backend Developer

Jan 2025 - Apr 2025

Intact Financial | Python, Flask, AWS, Kubernetes, Kafka, Tensorflow, Terraform, Docker

Toronto, ON

- Transitioned **AI pipelines** from image-based to text-based models, utilizing **AWS Textract** and **TensorFlow** for the text classification workflows.
- Leveraged **AWS S3** and **AWS Kinesis** for document storage and real-time analytics, integrating with Kubernetes, Databricks, Elasticsearch and other platforms to ensure scalability.
- Developed a robust distributed system through **Flask APIs** integrated with **Pydantic validation**, and leveraging **Kafka** for real-time message streaming and microservices communication.

Software Developer, ML

May 2024 - Aug 2024

Chartd | Python, FastAPI, Pandas, AWS, Azure, Docker

Ottawa, ON

- Architected and deployed a **low-latency API pipeline** for real-time text processing, integrating sentiment analysis and RAG, achieving **sub-2 second** response times.
- Developed a scalable infrastructure built on **AWS** for end-to-end model training and deployment, leveraging **SageMaker, S3, and ECR** to streamline data processing pipelines and reduce deployment time by **40%**.
- Delivered a custom data generation platform capable of producing datasets of up to **10 million** entries with dynamically adjustable input parameters, accelerating data preparation by up to **60%**.

Full Stack Developer

Sep 2023 - Dec 2023

Chartd | Python, MongoDB, FastAPI, Pandas, Vue.js, TypeScript, Docker

Ottawa, ON

- Developed a Business Intelligence platform leveraging NLP models to analyze complex financial data.
- Implemented an ETL **data pipeline** with Python for seamless data transfers into MongoDB, achieving **sub-3 second** latency.
- Configured a router with **4 asynchronous endpoints** in FastAPI to batch process **10,000+ data nodes**.
- Enforced robust data governance by designing **Pydantic models** used by the language models for inference.

Web Application Developer

Jan 2023 - Apr 2023

Chartd | Vue.js, Nuxt.js, TypeScript, HTML, Cypress

Ottawa, ON

- Developed **Track Offsets**, a financial management tool, abstracting data from JSON to TypeScript.
- Implemented CRUD interfaces used in **over 50 instances** within the app, using Cypress for **E2E Testing**.

PROJECTS

ExpenseLink | Python, React.js, Flask, JavaScript, Pandas, Google Cloud Platform (GCP)

- Developed a mobile-friendly expense tracking app with React.js and Flask, along with integration of **Google Cloud Platform** and **Google Sheets**.
- Integrated persistent Google Login through Flask API with **OAuth 2.0 credentials**, using **stateless token-based authentication** with **HS256** encrypted tokens stored as JWTs in **Cookies**.
- Utilised Pandas to format and aggregate **thousands of transaction** data points, and employed Axios to transmit data via HTTP requests to the app's backend API service.

AI Vlog Platform | Python, Flask, TypeScript, AWS, GCP

- Built an **AI-driven** video editing platform, integrating **ShotStack API** for advanced editing capabilities.
- Utilised **AWS S3** for video storage and **Google Gemini** for automated video analysis and edit sequence generation.