

Puck Wang

LinkedIn
Contact

Software Developer

Portfolio
GitHub

WORK EXPERIENCE

Full Stack Software Developer Intern

01/2023 — 12/2023

Solace Inc

Kanata, ON

- Built and enhanced **Spring Boot microservices** integrated with **Solace event brokers**, supporting micro-frontend architectures.
- Designed **RESTful APIs** enabling **real-time broker scanning**, **configuration-as-code validation**, and graph relation visualization.
- Implemented backend-driven **user behavior analytics (Mixpanel)** to support **A/B testing** and retention analysis.
- Led **Amazon RDS MySQL migration** from version 5.7 to 8.0, coordinating rollout to minimize microservices downtime.

Software Developer

03/2023 — 06/2023

University of Ottawa

Ottawa, ON

- Developed a high-throughput survey platform using React and Express.js.
- Designed and implemented a **schedule-based email microservice** using the **outbox pattern** for reliable event handling.
- Introduced **Redis-based in-memory caching**, improving read throughput and response time by 10x.
- Deployed containerized services using Docker and Nginx to support scalable research workloads.

PROJECT

Happy Holiday Icon [GitHub](#)

- Architected an **event-driven AWS pipeline** using Lambda, S3, SQS, and DynamoDB for asynchronous image processing and job orchestration.
- Built a **Next.js and TypeScript** application with authenticated REST APIs, job polling, and presigned S3 uploads.
- Implemented fault-tolerant processing using **DynamoDB conditional writes**, **processing leases**, **idempotent state transitions**, and **automated retry recovery**.

Wealth Hub Agent [GitHub](#)

- Architected a distributed **Python/FastAPI multi-agent system** for financial research and analysis, improving research throughput by 40% through asyncio-based parallel execution.
- Built **REST and Server-Sent Events APIs** to stream asynchronous agent status and results to a React/Next.js dashboard.
- Integrated LLM tools through **MCP** and implemented RAG over SEC filings and financial news using LlamaIndex and ChromaDB.

LLM-based Youtube Summarizer [GitHub](#) | [Demo](#)

- Built a **Java Spring Boot microservice application** integrating Spring AI for automated video summarization.
- Developed an asynchronous **AWS Lambda** pipeline using Whisper to generate captions for videos without subtitles.
- Reduced inter-service latency from **500 ms to 100 ms** using **gRPC**, while decreasing payload size by 30%.

EDUCATION

Master of Applied Data Science

University of Ottawa

Ottawa, ON

Bachelor of Science in Computer Science, Honours Program

University of British Columbia

Kelowna, BC

TECHNICAL SKILLS

Languages

Java, Python, TypeScript/JavaScript, SQL

Backend

Spring Boot, REST APIs, FastAPI, Node.js, gRPC, Microservices

Frontend

React, Next.js, Redux, TanStack Query

Database

MySQL, PostgreSQL, DynamoDB, Redis, ChromaDB

Cloud & DevOps

AWS, Docker, Terraform, GitHub Actions, Nginx