

EDUCATION

BSc: Specialization in Computer Science; Minor in Economics
University of Ottawa, ON

2009 - 2014

WORK EXPERIENCE

Senior Full Stack Developer/AI Developer (Parker AI)

Dec 2023 – Present

AI Agent Platform

- Architected core systems for an AI agent platform used for marketing and creative strategy, with internal tools that let agents query analytics and analyze large-scale datasets.
- Designed pipelines processing billions of data points daily across millions of ads and TBs of media assets.

AI Batch Processing & Fine-Tuning

- Built an async AI batch processing system on Gemini's Batch API for large-scale ad classification, with job queueing, retries, and cost-optimized batching.
- Fine-tuned open-weight LLMs with LoRA on local and cloud GPUs; built an auto-research loop that lifted task F1 from 0.7% (zero-shot) → 28% (v1) → 79% (v16) across 30+ iterations.

Scaling & Data Architecture

- Designed Supabase Postgres data models and storage using partitioning, indexing, and rollup strategies across daily/monthly/lifetime datasets.
- Scaled the analytics platform ~100× to thousands of workflows, with optimized RPC queries and read-replica workloads.

Data Pipelines & Ingestion

- Built ETL pipelines for ad ingestion, media processing, embeddings, and dataset sync using batch + concurrent processing.
- Built intelligent scraping systems for external ad datasets with adaptive scheduling for coverage and cost.

Frontend / UI & UX

- Designed frontend data-loading and caching with TanStack Query for near-instant dashboard performance on complex analytics queries.
- Built operational dashboards for system health, pipelines, and workflow monitoring used by teams to diagnose issues and manage ETL.

Senior Product Developer (Orium.com)

May 2022– Dec 2023

- Core contributor to Composable UI, a MACH Alliance–awarded headless commerce starter kit that reduced client delivery timelines by up to 6 months.
- Designed and implemented a Figma-synced theme system and performance-critical storefront features (PDP, checkout) with strong a11y and security standards.
- Led development of Harry Rosen's headless checkout system in 6 weeks; later productized and reused across multiple enterprise clients.

Dalin Huang

- Built internal tooling and led AI-focused technical talks to improve developer productivity across the organization.

Founder (HiNature Ltd)

June 2019 – Present

- Founded an eco-friendly, microbiome-focused cosmetics company; built a mobile scanner app analyzing 35,000+ ingredients with ~95% accuracy.
- Led product development, data ingestion, and ingredient classification pipelines.
- Later pivoted the company into a profitable real-estate and Airbnb rental operation in Quebec.

Developer (Shopify)

May 2019 – Feb 2020

- As part of the Money/Capital team, I refactored the capital offer decision tree, a critical system generating daily loan offers, improving efficiency, maintainability, and flexibility. This work enabled the successful launch of the "starter loans" project. I also designed and maintained the backend Capital API server and admin systems, optimized database queries, and ensured system reliability through on-call rotations, driving impactful financial solutions for small businesses.

Full Stack Developer (Combyne Ag (Formerly FarmLead))

Feb 2017 – May 2019

- I played a key role in scaling a monolithic marketplace platform to support over 1 million users by optimizing database architecture, implementing Redis caching, and integrating Elasticsearch for 10x–100x faster searches. I independently developed an admin dashboard system with role-based access for efficient management and reporting. Additionally, I refactored the system with AWS SQS and Python workers to handle asynchronous tasks, significantly improving performance and enabling seamless scalability for future growth.

Software Application Developer (i-sight.com)

March 2016 – Feb 2017

- Led development for key projects (Michigan State, GSK, Wipro) using full-stack technologies like Node.js, Backbone.js, PostgreSQL, and Elasticsearch.

Web Developer (Events.com)

March 2015 – March 2016

- Developed and maintained event registration services using full-stack LAMP technologies, including PHP, MySQL, AngularJS, and CodeIgniter.