Darwin Chen

Darwin Chen | My Portfolio
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Work Experience

Software Developer Intern May 2024 - Aug 2025
Ericsson *Ottawa, ON, Canada*

- Shipped React + OpenSearch observability dashboards that auto-indexed 15+ Jenkins pipelines; surfaced stage-level signals and reduced triage time by ∼60%.
- Prototyped an on-device large language model (LLM) failure summarizer with llama.cpp, converting jobs with 3,000+ error logs and 50,000+ lines into structured JSON for downstream automation.
- Built a Python validation pipeline (regex + AST parsing) to enforce error-ID conventions and prevent collisions before production releases.
- Ran automated log-triage experiments (Drain3 templates, MiniLM embeddings, HDBSCAN clustering) and built CI hygiene tooling for bulk Jenkins job audits/actions.

Web Developer & Manager May–Aug (2021–2023)
Pathfinders *Fredericton, NB, Canada*

- Maintained and enhanced production websites, delivering iterative improvements across PHP, HTML, and CSS.
- Streamlined localization workflows by developing internal Google Apps Script tooling (JavaScript) to reduce manual update overhead.
- Improved campaign measurement and site telemetry using Google Ads, GTM, and Analytics; deployed via Cloudflare, DreamHost, and WordPress.

Teaching Assistant Sept–Apr (2023–2026)
Queen's University *Kingston, ON, Canada*

- Elements of Computing with Data Analytics (CISC 151) and Discrete Structures II (CISC 203).

Education

Queen's University Kingston, ON
Bachelor of Computing Honours (Artificial Intelligence Specialization)
Sept 2021 - Apr 2026 *(w/ one year internship)* Dean's Honour List (2022, 2024)

Related Experience

Perception Integration Team Lead Sept 2023 - Apr 2024
Queen's AutoDrive - Link (team site) *Kingston, ON*

- Integrated vision-based object detection into an SAE Lv.4 autonomous vehicle platform; coordinated perception interfaces and integration criteria.
- Built validation workflows using MATLAB 3D simulations to verify outputs before on-vehicle testing.

Consulting Design Team Manager Sept 2023 - Apr 2024
QMIND - Link (team site) *Kingston, ON*

- Managed delivery of a fine-tuned GPT + LangChain pipeline for a client-facing application, coordinating implementation and integration handoff.

Projects

ofln (On-Device LLM App) — React Native, llama.rn

- Built a React Native mobile app for on-device chat with quantized LLMs via llama.cpp / llama.rn.
- Implemented RAG, VLM support, persona presets, and performance monitoring (tokens/s, latency, memory) with adaptive tuning packaged in an intuitive UI.

AI Content Pipeline — React, Python, Ollama, Whisper, FFmpeg

- Generated content briefs by prompting Ollama to emit structured JSON, then parsing into narration and scene timing; integrated TTS via the ElevenLabs API.
- Added on-screen captions using on-device Whisper transcription and rendered final videos using FFmpeg.

Skills: Python, JS/TS, React Native, Java, PHP, MATLAB, OpenSearch, Jenkins, CI/CD, Git, REST APIs, JSON, Log Analysis, LLMs, RAG, LangChain, llama.cpp, Whisper, FFmpeg, GA4, GTM, Google Ads, AWS, Embeddings, Clustering, Drain3, MiniLM, Ollama. Observability, Dashboards