

Alex Gwak

Full Stack Developer

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CAREER SUMMARY

Full stack developer, more frontend than backend and comfortable across the stack, with 8 years shipping TypeScript and React. Fuel logistics at Scamp Technologies and satellite detection at MDA Space.

SKILLS

- **Programming languages:** TypeScript, Python, JavaScript, C++, PHP, SQL
- **Frameworks:** React, React Native, Next.js, Angular, Vite, Node.js
- **State, data and APIs:** Redux, Zustand, TanStack Query, REST, GraphQL, Kafka, Temporal.io
- **Cloud:** Microsoft Azure, Google Cloud Platform, Railway, Supabase
- **Databases:** PostgreSQL, MongoDB
- **Testing:** Jest, Playwright, Selenium

WORK EXPERIENCE

Scamp Technologies

Senior Front End Engineer

Vancouver, BC

08/2023 – Present

Stack: React, Vite, TypeScript, Redux, Playwright, Jest

- **Load Management Systems:** Shipped the React/Vite load views used by 3 design partners to plan, assign and reconcile fuel loads in one workflow, converting those pilots into paid contracts.
- **Legacy Data Integration:** Engineered ingest that mapped dispatch and tank / inventory records from legacy TMS/ERP into a single load model, removing daily spreadsheet reconciliation for partner operations.
- **Redux Async Primitive Fix:** Found a shared Redux async primitive that silently swallowed request errors, hiding failures from callers across the codebase; fixed the promise contract to correctly propagate rejections, restoring reliable error visibility on concurrent requests.
- **Load Schedule Performance:** Redesigned payload shape, entity linking, and parallel request batching for the main load page, cutting large page load time by ~15 seconds versus the first production build.
- **Load Ledger Model:** Designed and landed a two step validate then commit flow that treats each load as a ledger contract, unblocking amendments and multi-stop loads that the previous document model could not represent without corrupting history.

MDA Space

Software Engineer

Vancouver, BC

08/2022 – 08/2023

Stack: Angular, TypeScript, C++, ArcGIS

- **Internal Geospatial Libraries:** Published 4 shared libraries used across MDA geospatial products, including a multi-tenant satellite imaging scheduler and tracker adopted by 3 imaging programs.
- **Elevation Change Detection:** Built an ArcGIS elevation change tool that parsed sample DEMs and flagged material terrain change at 90% accuracy against labeled ground truth.
- **VDS Front End:** Implemented the Angular UI for the Vessel Detection System, rendering satellite derived vessel tracks with filterable confidence scores so analysts could triage detection without exporting raw scenes.

TEEMA Solutions

Full Stack Developer

Vancouver, BC

08/2017 – 08/2022

Stack: JavaScript, TypeScript, PHP, SQL, HTML, CSS

- Contract Automation: Built a template driven contract generator that assembled approved clauses and highlighted deviations from different types of contract placements, cutting mistakes in manual review and drafting by ~30%.
- Partner Dashboard: Shipped a dashboard that tracked delivery status, blockers, and next actions across partner offices, replacing weekly status collection over email.
- Website Performance: Refactored first paint path and semantic markup, improved first paint by ~60% and SEO scores by ~50%, and aligned the layout with current information architecture patterns.

PROJECTS

Scamp Technologies / Load Management System

Led the React client for a fuel logistic load board: lifecycle UI, legacy ingest, and the validate then commit ledger flow used by 3 design partners.

MDA Space / Vessel Detection System

Built the analyst facing Angular UI for satellite vessel detections, including map layers, confidence filters, and triage on top of internal geospatial libraries.

Personal / Purpl

React Native app for job seekers and employers. Role based feed, matching, in app chat, and notifications systems.

Personal / Minari

Prototype for multi-agent workflow on a DAG, with each agent given a role, hierarchy and responsibilities. Runs on human in the loop review / assistance, and pause/playback.

Personal / fan-dex

Guest-send card packs for friends: a short deck of notes, photos, voice, and video mailed to an email. No account to send or open.

AWARDS AND ACCOLADES

University of Alberta - 2014 Academic Award Scholarship

EDUCATION

University of Alberta

BSc in Computing, Computer Science

Alberta

2017