Ferdinand Haaben

Software Developer

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SUMMARY

Highly skilled Full Stack Software Developer with experience in building sophisticated web applications from scratch. Proficient in modern web frameworks such as Django, Laravel, and Next.js. Eager to learn more and use my skills to provide value.

SKILLS

Programming Languages: Javascript, Typescript, Python, Java, PHP

Frameworks: NodeJs, React, NextJs, Django, Laravel

DevOps: Linux, Github, Digital Ocean, Laravel Forge, Docker

Testing: Jest, Jenkins, Selenium

Soft Skills: Leadership, Proactive Communication, Problem-Solving, Presenting, Adaptability, Innovation

Languages: English (Fluent) , German (Fluent), Spanish (Beginner)

EXPERIENCE

Lead Developer   2025
www.checknix.com (Web3 Tasking Platform)   *Remote*

• Spearheaded end-to-end development of an MVP web3 tasking platform that lets users post services (selling skills) or jobs (seeking skill), handling both types through a unified interface.

• Architected and deployed blockchain smart-contract logic to manage escrow holdings, supporting multiple ERC-20 tokens for seamless payment settlement.

• Engineered an interactive map with geo-search capabilities, enabling users to discover tasks and offers within a configurable radius.

• Integrated AI-powered text augmentation to auto-correct and enrich user-generated service descriptions..

• Containerized the full stack with Docker Compose, achieving reproducible environments and reducing deployment time from hours to minutes.

• Implemented end-to-end encrypted chat and image-sharing services, ensuring privacy-first communications between task creators and providers.

Chief Technology Officer (CTO)   2024 – 2025
Virtulynx   *Kelowna, BC*

• Spearheaded the end-to-end development of a SaaS platform for small car dealerships to automate and streamline used vehicle listings across multiple online marketplaces.

• Built and deployed a full-stack web application using Next.js, integrating Stripe for payments and Marketcheck API for dynamic vehicle data aggregation via VIN lookup.

• Designed and implemented a robust backend architecture, including a flexible database schema and server logic to support user management, vehicle listings, and subscription billing.

• Created a clean, intuitive front-end interface from scratch, incorporating AI-generated vehicle descriptions using OpenAI integration to improve listing quality.

• Established CI/CD pipeline using GitHub Actions and managed production deployment with DigitalOcean, ensuring seamless updates and rapid iteration.

Laravel Developer   2024
Nerd North   *Vernon, BC*

• Built and launched a full-featured Laravel-based swag fulfillment platform (SwagFan), enabling users to create redeemable product links using Printful integration.

- Designed and implemented the backend architecture, relational database schema, user management system, and business logic to support customizable giveaways.

- Developed a responsive front-end using Tailwind CSS, Alpine.js, and Laravel Livewire for real-time interactivity and seamless user experience.

- Integrated Stripe for user subscription billing, Printful for on-demand product fulfillment, and Twilio for 2FA verification using SMS to reduce fraudulent redemptions.

- Engineered robust functionality for swag redemption flow including inventory limits, size selection, address collection, and analytics dashboard for tracking costs and link activity.

- Delivered project independently from requirements gathering to production deployment, resulting in a live, revenue-generating product with active users.

Network Traffic Analyst (Co-op)
2023

Plume Design Inc.
Remote

- Engineered traffic "signatures" in a custom detection language for a C-based embedded engine, enabling accurate identification of popular applications across diverse devices.

- Captured and analyzed network packet data by configuring OpenWRT routers with OpenVPN and tcpdump, simulating real-world device traffic for signature development.

- Leveraged custom command-line tools, Python, and Wireshark to extract packet-level patterns and domain fingerprints required to distinguish difficult-to-classify services.

- Developed Python scripts to auto-generate traffic signature code from captured data, significantly reducing manual workload and accelerating signature deployment.

- Conducted big data analysis with PySpark on Databricks notebooks to identify behavioral patterns of WiFi extender devices and map associated child devices using real-world mesh network datasets.

Junior Software Developer (Co-op)
2022

Ocean Networks Canada
Victoria, BC

- Developed a modular Selenium UI test framework in Java to validate a React-based oceanographic data platform, streamlining test creation through reusable components and XPATH selectors.

- Collaborated with a senior developer to build a full-stack internal CSV ingestion tool, contributing both front-end (React) components and back-end (Java, OSGi) data processing logic.

- Participated in agile ceremonies within a 5-person feature team, including daily scrum meetings and peer code reviews, as part of a 30-person software department.

- Maintained rigorous test coverage across new and existing codebases, writing both unit and integration tests for Java services and React components.

- Gained hands-on experience in ocean data systems, contributing to infrastructure that supports research on hydrophones, underwater cameras, and sensor buoys.

Computer Technician
2025

JBJ Computers
Vernon, BC

- Diagnosed and repaired hardware issues on laptops and desktops, including screen, fan, and hard drive replacements for a wide range of consumer devices.

- Performed data migrations, malware removal, and OS troubleshooting for Windows and macOS systems, ensuring minimal disruption to customer productivity.

- Upgraded aging systems by replacing mechanical hard drives with SSDs and installing memory, significantly improving performance for clients.

- Provided empathetic, jargon-free technical support to a primarily senior customer base, clearly explaining issues and building long-term customer trust.

- Assisted in front-of-house operations including phone support, walk-in consultations, and payment processing, contributing to smooth day-to-day shop operations.

PROJECTS

Honors Thesis: Teaching with AI
2023 – 2024

University Of British Columbia

- Developed an asynchronous question center utilizing a Retrieval Augmented Generation (RAG) approach to provide answers to student inquiries.

- Implemented a feedback mechanism enabling students to rate AI-generated responses as helpful or unhelpful, fostering continuous improvement.

• Integrated a review and update system for teaching staff to refine unhelpful answers, ensuring high-quality and accurate responses.

• Successfully integrated the system into an existing office hours queue infrastructure, enhancing its practicality and user-friendliness.

EDUCATION

University of British Columbia - Okanagan (UBCO) Kelowna, BC
Bachelor of Science (B.A.Sc) in Computer Science (Honors). GPA: 3.9/4.33 *2019 – 2024*

Northern Lights College Dawson Creek, BC
Diploma in Aircraft Maintenance Engineering *2015 – 2016*

CERTIFICATIONS

- Class 5 Driver's License

- Possession & Acquisition License (PAL)

- Conservation and Outdoor Recreation Education (CORE)

- Transport Canada Drone Pilot Certificate (Basic)

- Co-operative Education Program (UBCO)

- Workplace Hazardous Materials Information System (WHMIS)

AWARDS

- Deputy Vice-Chancellor Scholarship, UBCO (2022-2023)

- Dean's List, UBCO (2024)