Vincent van Haaff

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Summary

I am a passionate technical creative and engineer with over eighteen years of commercial experience and full-stack skills in the design, development, and maintenance of modern, user-centered tech-driven products and services. I also create engaging experiences for installation and video games on both the web and console, with a strong interest in performance, engagement, clean efficient code, and accomplishing it with a strong team.

Besides work, I am a co-founder of Vancouver Maker Faire as well as Vancouver Hackspace and others. I am an educator, artist, and mentor living in Vancouver. I love climbing, cycling, good eats, and good times!

Experience

a flyingoctopus consulting

Creative Director/Co-founder | November 2010 - August 2024

- Introduced improvements to systems and hardware enabling clients to reach their goals. Clients such as *Vancouver Airport Authority*, *Hewlett Packard*, *O'Reilly Media*, *Science World*, *Emerson Connect*, *Canadian Border Services Agency*, and *U.S. Customs & Border Patrol*.
- Focused on rapid **computer vision** solutions and hardware prototypes with a focus on **biometrics** and **machine learning**.
- Guided clients through product and business development cycles, utilizing **Agile** methodologies.
- Leveraged devOps and CI/CD pipelines **to bring technical teams to the finish line**.
- Established technical and project management infrastructure, including version control, data analysis, and documentation processes.

Skills

Engineering direction:
User_Experience_Design, Product_Design, Systems_Engineering, Data_Visualization, Startup_Consulting, Data_Driven_Intelligence, Behaviour_Design

Programming languages:
C, C++, Rust, Ruby, Golang, Swift, Python, TensorFlow, Node

Web development:
HTML, CSS, JavaScript, React_js, WebGL, Webpack, OpenFrameworks, Processing

Frameworks tools:
Rails, Django, CQRS, Docker

Databases:
MySQL, Postgres, SQLite, MongoDB, Redis, Salesforce, Eventstore

Testing debugging:
Shoulda, Cucumber, RSpec, Test::Unit, Selenium, gdb, LLDB, PyTest, pdb, GoTest, Delve, CargoTest, Clippy

Software design architecture:
ActiveRecord, Sequel, CQRS, Microservices

Infrastructure:
Kubernetes, Docker, Kafka, Zookeeper, Elasticsearch, Logstash, Kibana, Terraform, Ansible, Jenkins, GitHubActions, AWS, Azure, Prometheus, Grafana

Version control:
Git, Perforce, Subversion

Servers deployment:
Nginx, Apache, AWS, HuggingFace, Azure

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Synervoz Communications Inc.

Senior Embedded Software Engineer | June 2023 - April 2024

- Crafted embedded firmware and infrastructure for an AI-driven audio DSP project on the Xtensa platform.
- Produced real-time embedded software for next-gen Bluetooth earbuds.
- Enhanced audio DSP pipeline reliability with low-level drivers and middleware in C.
- Conducted system debugging, maintained code quality, and provided detailed technical documentation for project stakeholders.
- Delivered project requirements on time ensuring *client satisfaction*.

FarmLink Marketing Solutions

DevOps Automation/Quality Assurance Engineer | June 2021 - October 2022

- Supported pivot from financial newsletter for grain farmers to full-fledged ai-driven SaaS platform.
- Assembled and upheld GitHub Actions-centered development pipeline.
- Wrote automation and integration tests; including documented information architecture for the project.
- Managed a team of junior QA hires to achieve 100% test coverage.
- Met and exceeded stakeholder expectations.

Fluency Labs Inc.

Technical Lead | January 2018 - October 2020

- Constructed distributed computing framework for cloud-native applications with decentralized features.
- Launched and scaled Kafka/Zookeeper/Akka/Atom Kubernetes clusters for IoT data ingestion.
- Developed C++ libraries for distributed actor-driven systems.
- Mentored junior developers.

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• Successfully deployed IoT data ingestion solution for Smart City pilot program for Park City, Utah.

Xeraflop Technologies Inc.

Senior Software Generalist | April 2017 - January 2018

• Adapted self-service and point-of-sale payment terminals with new biometric verification and e-commerce capabilities required by the new customer base.
• Migrated a Ruby on Rails monolith to an Eventstore-centric CQRS microservices architecture, optimizing cluster performance with Golang on Kubernetes.
• Designed front-end toolchain for a migration from Angular.js to Node/React.
• Deployed microservices solution for the Washington State Liquor and Cannabis Board tracking of legal cannabis sales and production.
• Facilitated company growth by increasing client base and SaaS cloud offerings.

Vancouver Airport Authority

Biometrics R&D Lead | March 2016 - July 2017

• Incubated an R&D lab from the ground up to modernize automated border control kiosks globally. Led the team and leveraged modern biometrics techniques to fulfill requirements from border services & other government agencies.
• Wrote automated test pipelines and evaluated optical system performance for biometric systems. Ensured accurate and reliable functionality for a wide scale of *internationally deployed* units to other airports.
• Oversaw fabrication of kiosk case and custom hardware as well as prototype assembly.
• Steered through design problems and resolved issues in a timely manner.

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David Suzuki Foundation

Data Evangelist | November 2015 - December 2016

- Implemented bulk data import processes and Salesforce tooling, integrating all SaaS products and creating data reporting tools for an internal digitization mandate.
- Identified stakeholder requirements and formulated proposal for backops tooling rework, reducing eon-profit overhead and optimizing team performance.

tzoa.com

Hardware/Data Consultant | September 2015 - March 2016

- Wrote firmware and mobile apps for air quality trackers, developing Bluetooth communication protocols and testing hardware/software communication.
- Assisted customers in planning their activities and protecting their health.

rouxbe dot com

Interim CTO | September 2014 - September 2015

- Managed DevOps and implemented new features for an online culinary education platform built on Ruby on Rails and Node.
- Handled scaling of servers seamlessly while adding Whole Foods as a client for our culinary education offering, doubling our viewership through increased capacity.

Hybridity

Product Development Advisor | June 2014 - September 2015

- Wireframed and executed backend business logic for a multi-platform mobile app.
- Integrated computer vision and HCI features.

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crossfader dot fm

Co-founder, Chief Technical Officer | September 2013 - September 2015

- Created a popular music production and community platform for iOS.
- Built a robust track recommendation engine and supported the engineering team by contributing real-time DSP editing features when needed.
- Provided HR and Backops support during startup growing pains.
- Grew the team from three to 50 employees and managed back-office operations and HR in the first year.

Graffiti Research Lab

Software Lead/Interaction Consultant | February 2013 - November 2014

- Drafted networked real-time projected graffiti systems in Java.
- Wrote blob detection/computer vision software and various shaders for graffiti emulation.
- Installed required hardware at the Woodwards W2 building in Downtown Vancouver to be networked in real-time to similar installations in Seoul, South Korea, and Berlin, Germany.
- Highly popular interactive graffiti exhibitions deployed internationally.

Coverall Crew

Software Lead/Platform Specialist | August 2012 - August 2014

- Oversaw the development of a white-label online ticketing service, creating a full-stack web product and a database layer using Ruby on Rails and MongoDB.

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eatART Labs

Event/Installation Coordinator | January 2012 - November 2015

- Provided interactive installation art for events leveraging real-time GLSL graphics shaders, computer vision, and custom hardware controllers.

weelooms dot com

Co-founder | January 2013 - August 2014

- Created tablet-dock/robot/conferencing assistant software and firmware, leading the tech team to create a virtual assistant platform for Android.

Eco-clix/Adrena LINE Zipline Adventure Tours @Sooke

Hardware/Software Developer | August 2010 - June 2011

- Fabricated kiosk and camera systems for photo capture and sharing, developing weatherproof cameras and motion sensors.

monome

Firmware Developer | January 2009 - December 2011

- Developed digital music instruments and synthesizers for the monome community.
- Built generative interface applications and embedded firmware for multi-architecture chipsets.

Microsoft/BigPark

Senior Software Developer II | August 2008 - May 2011

- Worked with incubation team on the Xbox Kinect and Xbox 360 platforms.
- Integrated social features and created sound effects for online

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gaming.
• Sold 8 million devices in 60 days.

Acknowledgements & Affiliations

• Stanford CCRMA Fellow
• El Camino Math Olympian
• Co-founder of Vancouver Mini-Makerfaire
• Co-founder of Vancouver Hackspace
• Co-founder of Aurora Digitalis