310-845-5989 neil.hansen.31@gmail.com Los Angeles, California

ABOUT ME

I love to design software that's intuitive on the outside and robust on the inside. Programs should be beautiful in their architecture and in how we build them — with empathy for our team, our organization, and our users. It's been a joy to write code that delights people, creates value, and can be counted on.

EXPERIENCE

ParadeDB Founding Engineer

Rust C PostgreSQL 2023 - Present

- Led the development of a cutting-edge open-source search engine for PostgreSQL, built in Rust and C, now deployed by Fortune 500 companies worldwide.
- Authored critical performance code relying on deep integration with PostgresSQL internals.
- Established robust testing and benchmarking practices to measure indexing performance, concurrency correctness, and replication reliability.
- Designed a user-friendly search API that fostered a passionate community of developers, encouraging widespread adoption and contribution.

Niantic Inc. Senior Software Engineer

React Golang Swift iOS/Android GCP GraphQL 2021 - 2023

- Led engineering efforts for the user onboarding flow, driving platform growth to over one million monthly active users.
- Designed database scaling stragegy, enabling worldwide deployment for a real-time application that was robust to drastic spikes in usage.
- Spearheaded a low-latency content moderation system, processing millions of images and messages, aided by AI-driven analysis and human review.

Fractal Inc. Software Engineer

TypeScript React Electron AWS Python Flask 2020 - 2021

• Spearheaded a rapid development cycle for the flagship desktop application, delivering a production-ready solution in under two months and enabling an early product launch.

Thr1ft Inc. Lead Software Engineer

Clojure ClojureScript React Native Swift 2019 - 2020

- Developed an iOS app prototype single-handedly, adapting quickly to evolving user requirements, securing seed investment for the company.
- Created a full-featured vintage clothing marketplace with integrated payment, authentication, and inventory tracking.

Route Eleven Inc. Creative Director

Python Blender AWS Flask React 2016 - 2019

- Led a multidisciplinary team to produce award-winning interactive media, earning Canada's highest honor for music videos.
- Engineered an AWS-based cloud storage and transcoding system, which quickly became one of the company's flagship offerings.

EDUCATION

SIDE PROJECTS

Don't Stop Retrievin'

architecture with live demos.

Ryerson University

Fall 2011 - Spring 2015

An engineering talk on building a lightning-fast music search engine, showcasing Postgres-based

Attended Canada's top program for visual media and filmmaking, specializing in photography and visual effects. Designed cutting-edge cinematography for feature films, commercials, and music videos. Specialized in generative effects development and integrations with Houdini, Nuke, and Adobe video engines.

Heavy Metal Detectors SuperCollider Max/Msp 2024

Built an interactive, room-scale musical installation that leveraged generative music and hardware sensor design.

AWARDS

Juno Awards (Canadian Grammy Award)

Video of the Year 2017 & 2018

Rust C Clojure 2024

Back-to-back wins of Canada's highest music award for collaborations with Grimes and Janelle Monae. Acclaim from Rolling Stone and MMVA's for creative and technical excellence in visual effects, animation, and immersive film design.

Niantic Hackathon 1st Place 2022

Created a 3D, world-scale version of the Campfire social networking app using innovative map rendering techniques.