



Software Development

nickav.co, Freelance – *Remote*

Fall 2011 - present

- Worked on mobile gaming infra: cross platform API, DX/tooling, v8 engine
- Ported Brax's physics inference step to C/WASM for AI-agent project (1000x faster)
- Wrote C/Go OS platform layer for a lightweight Electron-like API (only 6MB)
- Led React migration and a team of 5+ engineers. Built core project foundation and UI system. Wrote Excel-style input parser with syntax highlighting

Gigster, Freelance – *Remote*

Summer 2017 - Summer 2019

- Built various frontend React websites for startups and fortune 500 companies
- Lead React dev for Harley-Davidson Ride Planner Web for bikers to plan rides
- Created MyCanon USA frontend dashboard for users to register their products

Fin, Software Engineer – *San Francisco, CA*

Fall 2016 - Spring 2017

- Designed and built user-facing Fin Web React chat interface for handling in-bound messages and sandboxed images to prevent XSS attacks
- Worked on Rails backend, built Python email reply-chain filtering library

LinkedIn, Android Developer – *Mountain View, CA*

Summer 2015, Summer 2016

- Worked on core Android infrastructure, networking and disk cache journaling
- Created and published shake to report feedback library: shaky-android

Projects

Game Development – *Remote*

Fall 2005 - present

- Made cross-platform app template in C, custom graphics/UI layer
- Wrote C single-file header library (github.com/nickav/na)
- Built native C++ game engine with hot reloading, minimal dependencies (cyan 2020)
- Started with GameMaker in 2005 and published game with 20k+ plays (Boxes 2009)

Education

Recurse Center – *New York, NY*

Spring 2019

- Wrote a 2d game engine (C++, OpenGL, SDL and Lua) and React and Redux from scratch

University of Maryland, B.S. Computer Science – *College Park, MD*

December 2015

- Wrote course content and taught for Intro to Python Course (CMSC198 C/D/E)
- Design Thinking Coach, Academy for Innovation & Entrepreneurship

Technical Skills

Languages	C/C++, JavaScript/TypeScript, Go, Ruby, Python, SQL, HTML, CSS
Frameworks	OpenGL, DirectX, Metal, React
Systems	Windows, MacOS, Linux
Tools	Sublime Text, Vim, Git

Self-taught with 20+ years of experience