Patrick Canfield

EXPERIENCE

innerlogic.co, San Francisco — *Independent Game Developer* (self-employed)

June 2022 — PRESENT

`Node.js` `TypeScript` `THREE.js` `WebGL` `Elixir` `Linux` `Apache` `WebSockets` `Netcode` `REST APIs` `MIDI` `Web Audio` `Unit testing` `Project management` `UX research` `Rapid prototyping` `Entrepreneurship`

- λ Wrote game code that renders animated 3D environment at 120+ FPS in Web browsers
- λ Set up Linux Web server in my garage to host my projects
- λ Designed & implemented reactive ECS
- λ Implemented netcode for fast-paced multiplayer game
- λ Designed & implemented SaaS level editor
- λ Designed & implemented real-time collaborative MIDI synthesizer

Mappa Labs, San Francisco — *Lead software engineer* (remote contract)

September 2022 — January 2023

`Node.js` `TypeScript` `THREE.js` `WebGL` `WebSockets` `Path-finding algorithms` `Heuristics` `Analytic geometry` `Rapier physics engine` `Engineering leadership`

- λ Utilized A* for effecient path-finding in dynamic 3D environments
- λ Fixed critical bug in physics engine integration
- λ Advised with regards to best practices and efficient collaboration workflows

Infinite Reality, San Francisco — *Sr. Software Engineer* (remote contract)

July 2021 — January 2022

`Node.js` `TypeScript` `THREE.js` `WebGL` `Algorithms` `Data structures` `Web Workers`

- λ Designed & implemented system that transforms data from GIS services (e.g. Mapbox) into 1000s of polygons per second, recreating real city streets in 3D during gameplay.

Rally Health, San Francisco — *Sr. Software Engineer* (full-time)

October 2018 — January 2021

`Node.js` `TypeScript` `React` `Redux w/ Sagas` `Angular` `Single-Page Applications (SPA)` `Ajax` `Jest` `Scala` `Microservice Architecture` `CSS` `Accessibility`

- λ Implemented microservice that reduced time to first meaningful paint for Web property by ~15%
- λ Developed Pull Request status Slack bot in my spare time
- λ Contributed article on long-lived HTTP connections to engineering blog
- λ Mentored other engineers

Metromile, San Francisco — *Software Engineer* (full-time)

`JavaScript` `Angular` `Single-Page Applications (SPA)` `Ajax` `CSS`

- λ Created rapid prototyping scaffold
- λ Implemented "replay recent trips" feature using GIS data from onboard telemetry devices

CONTACT INFO

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STATEMENT

Software engineer of a highly collaborative, creative sort. Comfortable with ambiguity, can break down large projects, delegate, iterate rapidly with an eye for design and usability.

PROJECTS

innerlogic.co/game
untitled WIP block-pushing puzzle game. WASD controls. Z to undo. Mouse wheel to zoom.

No internet clone of Google Chrome easter egg, with some twists.

Kbdsmash local multiplayer game to make learning to type fun, and devious.

Too Many Monkey tower defense game.

This resume A simple Vite project.

EDUCATION

University of North Florida, Jacksonville, FL — *BS CompSci*

September 2004 — May 2009

`Linux` `C` `C#` `Java` `Algorithms` `Data structures` `Computability` `Discrete Math` `Linear Algebra` `Statistics` `Web Design & Development` `Compilers` `Entrepreneurship`

- λ Graduated with honors
- λ Varsity Athlete, Cross Country, Track & Field

λ Created reusable components that improve perceived page load time

Constant Contact, San Francisco — *Software Engineer* (full-time)

JavaScript · Backbone · Ruby · MVC · Jasmine · Single-Page Applications (SPA) · Ajax · CSS

λ Created reusable calendar component which set new standard for JavaScript code quality within the company

λ Was instrumental in the effort to incorporate automated testing of frontend code into CI/CD

λ Assigned to a two-person team that served as standard bearers for frontend code within the company

EventRay, San Francisco / Santiago, CL — *Cofounder, Software Engineer* (remote full-time)

JavaScript · Backbone · Python · Microservice Architecture · Single-Page Applications (SPA) · Ajax · CSS · Entrepreneurship

λ Created presentation which helped us get selected by Chile's Y-Combinator.

λ Designed & implemented logic-enabled WYSIWYG form builder

Adtec Digital, Jacksonville, FL — *Embedded Systems Software Developer* (full-time)

C++ · Linux

λ Wrote Linux daemons in C++ for embedded systems

λ Implemented SNMP client and server

ACRE, Jacksonville, FL — *Intern Web Developer* (internship)

PHP · HTML · CSS · JavaScript

λ Went beyond simply updating website and created admin CRUD UI in PHP so that realtors could update the site themselves