James Fenn

Full-stack software developer

✉ me@jfenn.me | 🌐 https://jfenn.me | ⭗ @fennifith

About

I have a variety of experience working with various technologies including web APIs, front-end frameworks, Android applications, and graphics programming. In addition to JavaScript and HTML/CSS, I am familiar with Kotlin, NodeJS, Java, Rust, TypeScript, SQL, Bash, and a handful of other programming languages.

I have built custom software solutions from the ground up, using tools like Git, Docker, and Gradle to create an efficient and reliable workflow.

My non-professional interests include trail running, music, pixel art, and game design.

Volunteer Experience

These are some software communities that I volunteer for or participate in.

Unicorn Utterances
Developer / Community Leader — ⟲ 5 Years

Had a primary development role in a site with 2500+ commits and 42k+ annual visitors.

Reviewed site contributions and technical articles, and built interactive in-text components for our content.

Used markdown processing libraries to automate image preview generation.

Horrific Development
Core Member — ⟲ 5 Years

Developed the Horrific web platform and hosting automation.

Performed server maintenance and backups with Docker containers on a RAID storage array.

Education

Computer Science, BS
University of Pittsburgh
2018 — 2022

Work Experience

Software Engineer at TEKsystems
teksystems.com   January 2023 — Current

From January-June 2023, worked on a contract project with American Express as part of a Kotlin backend team.

- Implemented functionality to improve unit testing and documentation practices within the codebase.
- Created several API endpoints and functionality to communicate with the frontend application and database.
- Wrote logic to interact with external services and ensure the authenticity of received events.

Kotlin | Java | OpenAPI | SQL | AWS

Software Engineer Intern at OceanBit
oceanbit.dev   January 2021 — December 2022

Expanded Vue and NodeJS projects using WebSockets, RPC, and Linux D-Bus APIs.

Developed a multiplatform desktop application with Rust and Tauri.app.

Vue | React | NodeJS | TypeScript | Linux | Rust

Software Development Intern at Robomatter
robomatter.com   May 2021 — August 2021

Helped develop new features for applications supporting multiple operating systems.

Participated in the development and evaluation of educational tools for K-12 STEM programs.

React | NodeJS | Kotlin | Java | Android

Software Developer at Trevian Intl.
trevian.xyz   May 2019 — June 2021

Developed and administrated a variety of web services for our clients, including a form processing application and data visualization library.

Created an in-house platform for website management and deployment.

NodeJS | Jekyll | HTML | d3js | Kotlin

Work Experience

Assistant Instructor at Upstream Coding
upstreamcoding.com   May 2019 — August 2020

Worked as an assistant instructor to teach classes, answer questions, and assist students with coursework.

Developed several parts of the Upstream content management system in React, and backend services using TypeScript and NodeJS.

React | NodeJS | TypeScript | ExpressJS

Personal Projects   @ jfenn.me/projects

These are some libraries and applications that I have built and published under Open Source licenses for others to use.

Attributer   ⬇ 1M+   ⏱ 4 Years

An automated info page for Android apps, providing attribution for contributors and OSS libraries.

Kotlin | Android | REST

Alarmio   ★ 300+ Stars   ⏱ 5 Years

An alarm clock that integrates useful features with a simple design. It supports multiple time zones, stopwatch and timer functions, and internet radio.

Kotlin | Android

Metronome   ⬇ 100K+   ⏱ 5 Years

A lightweight metronome for Android. It includes multiple sounds, touch input, and dynamic theming.

Kotlin | Android

Status   ⬇ 1M+   ⏱ 2016 - 2019

A (no longer maintained) Android utility for modifying the appearance of the system status bar. The app creates its own overlay to implement custom behavior without root permissions.

Java | Android

Git-REST API   ⬇ 1.9K/mo   ⏱ 2 Years

A normalized cross-platform wrapper library for the REST APIs of all major git hosting platforms, including GitHub, GitLab, and Gitea.

Kotlin | Java | Android | NodeJS | JavaScript

Writing   @ jfenn.me/blog

Here are some articles I've written about specific parts of my software and its design process.

Minecraft Data Pack Programming
Jun 15, 2022

A beginner-friendly series for teaching programming concepts with Minecraft data packs.

Dynamic Backgrounds in Unicorn Utterances' Preview Images
May 31, 2022

An explanation of some CSS tricks and techniques I used to make a neat contribution to the Unicorn Utterances blog site.

HTML | CSS

Declarativ: an experimental React-like HTML framework
Aug 17, 2021

A breakdown of the concepts used in Declarativ, a lightweight JavaScript HTML templating library.

NodeJS | TypeScript | React

Audio Automation: using Java's MIDI APIs with Kotlin Flow
Jan 31, 2021

An explanation of the development process behind a MIDI library using the Kotlin Flow API.

Java | Kotlin | MIDI

Animating SVG Icons on the Web
May 9, 2020

A small breakdown of the process I used to create a couple interactive icons for a web project.

JavaScript | CSS | SVG

Skills

These are a subset of some popular languages, platforms, libraries, and frameworks that I have substantial experience with.

🤖 Android   Ⓚ Kotlin   Ktor   🐍 Python
Ⓡ Rust   NodeJS   JS JavaScript
TS TypeScript   ⚛ React   NextJS   Svelte
Ⓥ VueJS   Express   SQL   d3js   Git
Java   🐳 Docker   Gradle   #! Bash