Jeremiah Kellick

Former web developer who went on an educational hiatus to become a systems programmer

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C C++ C# Multithreading OS Internals HTML CSS JavaScript TypeScript Angular

Work Experience

Software Engineer

2019–2023

Google

Built user interfaces in Angular and TypeScript as the frontend tech lead and point-of-contact for a small team of three engineers. Made flexible forms where subsequent steps varied widely depending on user selections in prior steps, presenting controls fine-tuned to the customer's use case.

Projects

Chess

demo source 2024–2025

A software-rendered chess application written from scratch in C. Play against yourself or a hand-coded AI. Ported to three platforms: Windows, macOS, and the web, depending on only the C standard library and APIs provided by the respective platforms. Wrote a vector graphics rasterizer to render chess pieces and text at flexible screen resolutions.

DEFLATE Decompressor

source 2025

Can decompress gzip files and zlib-compressed data, which both use the DEFLATE compressed data format

JSON Parser

source 2024

Handles the full JSON spec, including e.g. Unicode escape sequences in strings and exponent notation for numbers.

Education

Independent Study

2024–present

Taking the ongoing Performance-Aware Programming course by Casey Muratori on how modern CPUs work, estimating the speed of performance-critical code, and optimization techniques every programmer should know.

Studied math. Read and did the exercises for "Mathematical Proofs" by Gary Chartrand, Albert D. Polimeni, and Ping Zhang. Working through the exercises in "Linear Algebra Done Right" by Sheldon Axler.

Studied Chinese.

Carnegie Mellon University

2022–2023

Took the following courses as a non-degree student:

- 18-213 Introduction to Computer Systems
- 15-411 Compiler Design
- 15-410 Operating System Design and Implementation

App Academy

2018

1,000 hour coding bootcamp