

# 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   Compilers   3D Graphics   HTML   CSS   TypeScript   Angular

## Work Experience

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### 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

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### 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 compression format

### JSON Parser

[source](#)   2024

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

## Education

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### Independent Study

2024–present

Programming—Took the “3D Graphics Programming from Scratch” course by Gustavo Pezzi at pikuma.com ([cert](#)). Completed all material released to date for the “Performance-Aware Programming” course by Casey Muratori.

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.

Misc—Chinese language learning

### 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