

# Jesse Taube

📧 Embedded Software Engineer  
📍 Newton Massachusetts  
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## TECHNICAL SKILLS AND INTERESTS

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**Languages:** C, C++, Shell, Verilog, Python

**Tools & Technologies:** Git, KVM, Linux Kernel, U-Boot

**Protocols & Libraries:** Networking, C&C++ STL, I<sup>2</sup>C, SPI, RS232

**Hardware:** Experienced with reading schematics, using oscilloscopes, multi-meters, and low-speed routing

**Areas of Interest:** Embedded Linux, IOT and IOT security

## EXPERIENCE

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### • D3 Engineering

May 2023 - Aug 2023

*Intern Kernel developer on the Nvidia Jetson Team*

Rochester, New York

- Linux Kernel driver development in C for GMSL and FPD-link cameras.
- Writing device trees and device tree overlays.
- Reading schematics and datasheets.
- Working with oscilloscopes and multi-meters.
- Debugging hardware and software issues, such as MIPI CSI data loss.

### • Part-time Freelancer

Jun 2018 - Present

*Hardware and Software developer*

Hybrid

- Writing Kernel drivers for custom hardware.
- Development of custom test boards.
- UL-certified SOM-based custom motor control board with HDMI.
- Programming tutor for University and high school students.

### • Microcenter

Feb 2022 - Jan 2023

*Customer Service Representative*

Cambridge, Massachusetts

- Communication with management and customers.
- Diagnosing and helping customers with computer problems.

## PERSONAL PROJECTS

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### • Linux Ports

*Porting of IMXRT to the Linux Kernel*

- Writing Kernel drivers in C and Device Trees
- Debugging over JTAG with GDB
- Using agile development with co-developers

### • KISC-V

*A KISS principle RISC-V32I CPU, written in SystemVerilog*

- Written in SystemVerilog and debugged with GTKWave
- Used Vivado and Quartus to run on Xilinx and Altera FPGAs
- Microcode generation in Python
- Custom trap handler in C and Assembly to emulate CSR instructions
- Can run No-MMU Linux

### • Personal Blog

*Blog with backend in NodeJS hosted Locally*

- Dynamic and static pages in NodeJS using Express
- JQuery and Bootstrap for frontend
- Locally hosted on servers running cockpits KVM

## EDUCATION

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### • University of Massachusetts Lowell

2022-26

*Bachelor of Computer Engineering*

### • Newton South High School

2022

- LigerBots - FRC team 2877
- Science team