Jesse Taube

Embedded Software Engineer
Newton Massachusetts
University of Massachusetts Lowell

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GitHub Profile
LinkedIn Profile
🌐 My website

Technical Skills and Interests

Languages: C, C++, Shell, Verilog, Python
Tools & Technologies: Git, KVM, Linux Kernel, U-Boot
Protocols & Libraries: Networking, C&C++ STL, I^2C, 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

- **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

- **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
  – 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

- **University of Massachusetts Lowell** — *2022-26*
  Bachelor of Computer Engineering

- **Newton South High School** — *2022*
  LigerBots - FRC team 2877
  Science team