



Jack Sivak

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WHAT I DO

I build software for hardware systems. At home writing a web UI, designing a robot state machine, or bit-banging data through a custom SPI. I thrive when rapidly building proof-of-concept systems for real-world testing and use.

WORK EXPERIENCE

Senior IoT Engineer • Markforged **April 2021 - Current**

- Learned a new language to build modules in an existing codebase for Markforged's latest industrial composite printer.
- Led a team of two other engineers to upgrade the user interface for the printer above.

Senior Robotics Engineer • Canvas Construction **Jan 2019 - May 2020**

- Created the user interface for Canvas' construction robot, working on a variety of desktop and mobile devices by both technical and non-technical operators.
- Built a simulation environment from the ground-up in Unity to streamline functional and regression tests, improve engineer productivity by removing reliance on hardware, and refine job cost estimates.

Senior Interviewer • Karat **Apr 2018 - Aug 2018**

- Conducted interviews with engineering candidates to assess technical abilities using a variety of standardized tests and coding challenges.

Senior Software Engineer • Impossible Foods **Jan 2015 - Feb 2018**

- Streamlined scientist workflow by automating data organization, analysis, processing, gathering, and warehousing, saving hundreds of hours.
- Built and programmed equipment that enabled measurement of new attributes

and features of the product, removing the need for expensive specialized hardware.

- Maintained 8 independent infrastructureless Google App Engine apps.

Robotics Engineer • Vecna Technologies

Jul 2012 - Aug 2014

- Helped transition Vecna's flagship robot, the QC Bot, from a prototype into a production model used at six sites.
- Integrated low-level sensors, improved navigation performance, and developed much of the protocols for server communication, inter-robot coordination, user interface control, and control of on-site infrastructure.
- Developed the user interface used by remote support staff to monitor robots all over the world and respond to issues in real-time without intimate knowledge of the system.

Co-Founder • Sensible Baby

Mar 2013 - Jan 2014

- Helped develop a prototype baby monitor that communicates with an iPhone to alert parents of unusual activity, and went on to raise \$100,000 for an initial prototype run.
- Managed website creation and maintenance, along with many non-technical tasks associated with startup growth, such as filing for a copyright and interacting directly with beta testers.

</> PROGRAMMING LANGUAGES

- **Most Recently Used:** Typescript/Javascript, C#, Python
- **Prior Experience:** Java, C, Objective C, C++

🔧 TOOLS

- **DevOps:** Unix, Google Compute, Google App Engine, Nginx
- **Frameworks:** ROS, Aurelia, Three.js, SQL, MongoDB, Arduino, AVR, PIC
- **Programs:** Unity, XCode, Fusion 360

🎓 EDUCATION

Master of Computer Science

Computer Science Department, Cornell University

2011 - 2012

Ithaca, NY

Bachelor of Robotics Engineering

Robotics Department, Worcester Polytechnic University

2007 - 2011

Worcester, MA