John Sivak

in LinkedIn   **GitHub**   **StuffJackMakes**   **✉ Contact**

📖 WHAT I DO

I build software for hardware systems. Adept at working on multiple levels of complex systems, from UI/UX, to state core logic, firmware sensor integration, and everything in-between. In my element when rapidly building real-world proof-of-concept systems.

💼 WORK EXPERIENCE

Senior IoT Engineer · Markforged   **April 2021 - August 2024**

- Led a small team to overhaul the user interface for the next generation of Markforged printers, improving usability, throughput, and customer outcomes.
- Developed a suite of tests to assess printer health and collected the data in a human-readable online format, allowing Markforged to better insight into the state of their internal fleet, as well as the state of customer machines.
- Helped identify areas where engineering could have the greatest impact on the organization, and coordinated with the engineering team to tackle the highest impact problems first.
- Mentored and managed the work of several junior engineers.

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 andregression 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**

- Developed a prototype baby monitor that communicates with a smartphone to alert parents of unusual activity, and went on to raise $100,000 to persue the idea.

</> 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   **2011 - 2012**
Computer Science Department, Cornell University   *Ithaca, NY*

Bachelor of Robotics Engineering   **2007 - 2011**
Robotics Department, Worcester Polytechnic University   *Worcester, MA*