

Ari Bennett

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www.aribennett.com (Design Portfolio)

The Hillman Group

Senior Director of Software Engineering

2022 to Present

- Managed several teams comprised of 20 engineers developing multiple next generation consumer kiosks
- Architected the implementation of machine learning computer vision systems, while personally developing the required heuristic vision algorithms
- Invented computational strategies for inverse kinematics, toolpathing, computer vision and path planning
- Managed the innovation and IP strategy and its implementation within the new product development process
- Oversaw the development and deployment of full stack software to a multinational fleet of over 17,000 kiosks
- Created long term strategies for expanding SAAS opportunities for fleet management

Technology Director

2019 to 2022

- Developed a Linux platform tailored for kiosk applications deployed in 2000 stores nationwide
- Led a multidisciplinary team integrating the Resharp product into the existing MinuteKEY management and observability platform, eliminating the need for dedicated Resharp customer service and support staff
- Designed and built out services managing communications, robotic controls, software deployment, firmware deployment, user interaction, observability and analytics on hundreds of deployed kiosks
- Created AI streaming solutions to provide prognostics from field data, allowing for extremely efficient issue diagnosis and alerting
- Architected and implemented tools, data model and underlying architecture for operating a distributed fleet of machines to enable continuous improvement and reduce the on-call load to near zero

Resharp

Cofounder and CTO

2017 to 2019 (acquired by the Hillman Group)

- Led software, electrical, and mechanical prototyping and development for an automated knife sharpening kiosk deployed as a "hardware as a service" product (resharp.com)
- Built an end to end fleet management platform on top of AWS IOT for managing software deploys, observability, analytics, and more
- Grew the team from founders to 6 people and managed the execution of all engineering tasks
- Ran reliability testing to validate kiosk design and built tests and observability tools required to extend kiosk life

Stanford Product Realization Lab

Teaching Assistant

2015 to 2017

- Coached introductory and advanced mechanical and product design courses at the Stanford Product Realization Lab as a teaching assistant. Instructed over 500 students how to execute their projects and how to approach ideas from the standpoint of feasibility, value and aesthetic
- Taught graduate coursework in computational 3D printing design

Boosted Boards

Mechatronics Intern

2015

- Designed an electric skateboard controller and managed user testing and DFM

Programming

Python, C++, C, C#, Java, Javascript, Vue, React, PIC Assembly, Matlab

Computational Numerics

Scipy, Numpy and OpenCV for kinematic modeling, path planning, image and data analysis

Infrastructure Technologies

Terraform, AWS, SQL (Postgres, MSSQL), Timestream, DynamoDB

Education

Stanford University, Mechanical Engineering, BS 2015

Stanford University, Mechanical Engineering (Mechatronics, Manufacturing), MS 2017