

Ari Bennett

aridbennett@gmail.com

www.aribennett.com (Design Portfolio)

The Hillman Group

Technology Director

2021 to present

- Directed a team of engineers doing research and development on a next generation home and auto key kiosk
- Invented computational strategies for inverse kinematics, toolpathing, computer vision and path planning

Resharp Technology Director

2019 to 2021

- Developed a Linux platform deployed on 2000 kiosks 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
- Architected and implemented tools, data model and underlying architecture for operating a distributed fleet of machines to enable continuous improvement and reduced the on call load to near zero
- Designed motor commutation and feedback control systems to reduce cost and improve reliability and observability of embedded systems, allowing remote troubleshooting and history analysis of hardware issues

Resharp

Cofounder and CTO

2017 to 2019 (acquired by the Hillman Group)

- Led initial mechanical, electronic, and software prototyping and development for an automated knife sharpening kiosk deployed as a "hardware as a service" product (resharp.com)
- Grew the team and managed the execution of all three disciplines, leading integration and top level design
- Ran reliability testing to validate full stack design and built the tests and observability tools required to close the loop and extend kiosk life

Stanford Product Realization Lab

Teaching Assistant

2015 to 2017

- Coached introductory and advanced 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
- Ran operations, training and safety oversight in the Product Realization Lab Machine shop
- Taught graduate coursework in computational 3D printing design

Boosted Boards

Mechatronics Intern

2015

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

KIWI GMBH

Mechanical Engineering and Product Design Intern

2014

- Owned and developed the ID, user testing and DFM for a consumer keyless entry solution

Programming

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

Computer Aided Design

Solidworks, Fusion 360, Autocad, EagleCAD, Altium, KiCad, Rhino, HSMWorks, GCode

Prototyping

Machine shop and foundry tools, electrical prototyping, hardware spin-up and troubleshooting

Computational Numerics

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

Education

Stanford University, Mechanical Engineering, BS 2015, MS 2017