

Ari Bennett

aridbennett@gmail.com

www.aribennett.com (Design Portfolio)

Interdisciplinary engineer with experience in software, mechatronics, and design. Expertise taking mechatronic products from initial prototype to scaled operation.

The Hillman Group, Technology Director, 2019 to present

- 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
- Designed and built out services managing communications, robotic controls, software deployment, firmware deployment, user interaction, observability and analytics on hundreds of deployed kiosks
- Directed a team of engineers doing research and development on a next generation key kiosk
- Architected and implemented tools, data model and underlying architecture for the operation of a distributed fleet of machines to enable continuous improvement, anticipate customer needs and perform fleetwide prognostics and diagnostics
- Invented computational strategies for inverse kinematics, toolpathing, computer vision and path planning
- Designed motor commutation and feedback control systems for multiple products to reduce cost and improve reliability

Resharp, Co-Founder and CTO, 2017 to 2019 (acquired by the Hillman Group)

- Led initial mechanical, electronic, and software prototyping and development while growing the team and managing the technical requirements and execution of all three disciplines
- Ran reliability testing to validate full stack design and built the tests and observability tools required to close the loop and refine products

Stanford Product Realization Lab Teaching Assistant, 2015-2017

- 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

Extensive experience with standard machine shop and foundry tools, electrical prototyping, hardware spin-up, and working with rapid vendors in for quick iteration and integration of mechanical and electrical systems.

Computational Numerics

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

Education

Stanford University, Mechanical Engineering, BS 2015, MS 2017