

# 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

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## **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

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## **Education**

Stanford University, Mechanical Engineering, BS 2015, MS 2017