Ari Bennett

aridbennett@gmail.com   www.aribennett.com (Design Portfolio)

Interdisciplinary engineer with experience in software, mechatronics, and design. Experience taking mechatronic products from invention to scaled manufacturing and operation.

The Hillman Group, Technology Director, 2019 to present

- Developed a Linux platform used for a kiosk put into nationwide service
- Built out services managing communications, robotic controls, software deployment, firmware deployment, user interaction, observability and analytics
- Created tools, data model and underlying architecture for the operation of a distributed fleet of machines, and to enable continuous improvement to anticipate customer needs and perform fleetwide prognostics
- Integrated numerous other software systems as part of the acquisition, and led architecture development for a nationally scaled product fleet with a team of engineers
- Developed controls systems for multiple products, including motor commutation, feedback control, inverse kinematics, toolpathing, computer vision and path planning

Resharp, Co-Founder and CTO, 2017 to 2019 (acquired 2019)

- Led initial mechanical, electronic, and software prototyping and development before growing the team and taking over 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 of 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

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