Henry Cheung

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Education

Massachusetts Institute of Technology

Class of 2019

Bachelor of Science, Major in Electrical Engineering and Computer Science

- Relevant Courses: Medical Device Design, Solid-State Circuits, Power Electronics, Microelectronic Devices and Circuits, Elements of Software Construction, Microcomputer Project Lab, Intro to Analog Electronics Lab

Experience

Advanced Functional Fabrics of America

July '19-Present

Embedded Systems Engineer

Cambridge, MA

- Leading agile teams tasked with building demonstrator projects at the nexus of hardware and textiles leading to significant follow-on funding from both commercial and DoD customers
- Building out project requirements, timelines, and budgets while interfacing directly with customers
- Performing customer discovery for smart textiles and other technology in a range of markets while designing and testing minimum viable products based on customer feedback
- Designing and executing electrical, software, & hardware systems for a range of austere environments, including extremely high temperature to high pressure water immersion
- Contributed major technical accomplishments leading to at least 2 provisional patent applications

Pascall Systems September '18-Feb '19

Electrical/Embedded Engineer

Cambridge, MA

- Developed mobile app and device communication protocols for an electroencephalogram (EEG)
- Evaluated electronic boards for prototypes

Biotonomy July '18-June '19

Co-Founder

Cambridge, MA

- Explored beachhead markets for a cell culture monitoring system with seed funding from MIT Sandbox Innovation Fund along with technical development of said platform

Loro June-August '18

Electrical/Embedded Engineer

Cambridge, MA

- Developed an assistive camera device for wheelchairs, enabling paralyzed users to communicate and navigate
- Represented company in judging/pitch rounds at the Microsoft Imagine Cup World Finals in Seattle

Breast Lesion Biopsy Clip Detection

September '17-May '18

Co-Developer

Cambridge, MA

- Created a novel detection system based on single-crystal ultrasound technology to localize small clips placed in the breast during biopsy of suspicious lesions
- Collaborated with clinicians at Massachusetts General Hospital in order to incorporate customer feedback for design

Conformable Decoders (MIT Media Lab)

March-June '18 Cambridge, MA

- Fabricated piezoelectric sensors, actuators, and transducers for conformal biomedical devices

Designed and prototyped analog and digital circuitry in order to interface with such devices

Activities

Researcher

MIT MakerLodge

September '16-present

Electronics Training Chair

Cambridge, MA

- Developing introductory electronics training curriculums with custom PCB projects for students
- Training and teaching fellow students how to use basic machine shop tools, safety, 3D printers, laser cutters

Class Lab Assistant

September '17-December '18

Introduction to Embedded System (6.08), Circuits and Electronics (6.002)

Cambridge, MA