LOGAN WILLIAMS

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Most recently, I was a fellow in residence at the BuzzFeed Open Lab, building experimental media tools to transform personal photographs into reflective stories. Previously, I worked on computational photography and camera hardware projects at Apple. I have particular interest in work that helps civic organizations connect meaningfully with those they serve and individuals connect meaningfully with each other through narrative, spatial, and interactive data representation.

EDUCATION

Recurse Center — New York, NY   January 2018 to March 2018
Participant in the Recurse Center, a "self-directed, community-driven educational retreat for programmers." Focusing on creating interactive media art, exploring geographical data, and contributing to open source projects.

Massachusetts Institute of Technology (MIT) — Cambridge, MA   September 2009 to June 2014
M.Eng. in Electrical Engineering and Computer Science, June 2014. Cumulative GPA **5.0/5.0**.
Thesis: *Design and implementation of a fiber optic doppler optical coherence microscopy system for cochlear imaging*
B.S. in Electrical Engineering and Physics, June 2013. Cumulative GPA **4.9/5.0**.

EMPLOYMENT & RESEARCH

Research fellow, BuzzFeed Open Lab — San Francisco, CA   October 2016 to October 2017
Fellow in residence within the Open Lab, a space for research in technology, journalism, and art. Created a prototype web application for turning snapshots into stories, driven by the user's interaction with a conversational user interface. Built tools for alternative photographic visualization and psycho-geo-spatial data analysis.

Image scientist, Camera Systems Engineering, Apple, Inc. — Cupertino, CA   December 2014 to May 2016
Camera hardware intern, Camera Systems Engineering, Apple, Inc. — Cupertino, CA   June 2013 to August 2013
Primary developer of a novel computational photography feature for existing cameras. Collaborated with a multi-disciplinary team on the development, manufacture, and test of a precision computer vision hardware feature. Designed prototype hardware and iOS software for an experimental communication application of traditional imaging hardware.

Graduate research assistant, Micromechanics Laboratory, RLE, MIT — Cambridge, MA   October 2012 to June 2014
Designed, built, and tested a fiber optic apparatus capable of imaging motion within biological tissue on the scale of a single hydrogen atom. Performed optical, mechanical, electrical, and software design and implementation. Collaborated with researchers across disciplines to define specifications and goals. Personally responsible for budgeting, sourcing components, and managing project schedule.

Teaching assistant, Introduction to EECS (6.01), MIT — Cambridge, MA   September 2012 to June 2013
Part of a team of faculty and students responsible for teaching and improving an innovative hands-on curriculum for providing a holistic introduction to foundational concepts in electrical engineering and computer science.

Electrical engineering intern, MC10, Inc. — Cambridge, MA   May 2012 to August 2012
Responsible for designing and prototyping a low power body-area-network communication device in fast paced startup environment. Additionally, performed miscellaneous research tasks in electromagnetics and CMOS layout.

Electrical engineer, Protei Project, V2_ Institute for the Unstable Media — Rotterdam, NL   May 2011 to August 2011
Worked with a diverse team of artists and engineers to create a robotic sailboat for oil spill cleanup over a three month period. Participated in a collaborative design process, including rapid prototyping, mechanical construction, and testing. Responsible for electrical engineering, including microcontrollers, system firmware, sensors, and actuator control.

Research assistant, Tangible Media Group, MIT Media Lab — Cambridge, MA.   Oct. 2009 to August 2010
Prototyped a 3D tangible communication device for children, combining extremely low-cost 3D scanners with a 3D printer. Developed a geospatial browsing interface for use with a novel three-dimensional tactile input/output table.

SKILLS
- Software development for web, desktop and mobile with JS (Node, Meteor, and React), Python, C, and Objective-C
- Signal processing, computer vision, numerical simulation and data analysis in Python, Julia, MATLAB, and R
- Embedded microcontroller programming with Atmel C, Arduino, and PIC assembly.
- Electronic circuit design, including FPGAs, microcontrollers, analog amplifiers, filters, and feedback systems.
- Circuit prototyping, including schematic capture, PCB layout and SMD soldering
- Mechanical prototyping experience, including design in SolidWorks and fabrication with metalwork and 3D printing