Alex Aubuchon

Be a person others look for to solve problems, and make waves.

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CONTACT INFORMATION

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EDUCATION

Northeastern University — Boston, MA
BS in Computer Science and Physics — Sep 2015 - May 2019

Coursework: Advanced Algorithms, Theory of Comp, NLP, Quantum Mechanics
Extracurriculars: Tutor fo Discrete Structures (2017), Upperclassman Tutor (2016)

WORK EXPERIENCE

Draper Laboratories — Cambridge, MA
Student, Machine Intelligence Group — Jan 2017 - Aug 2017

Involved in three projects applying skills across multiple disciplines including prosthetics, electronics, and machine learning:

- Implemented the software interface to a percutaneous neuro-stimulation device as part of the DARPA HAPTIX program. Designed the next generation of the device using wirelessly controlled implants by working closely with the hardware and firmware teams. Proposed a solution to communicating the low-latency stimulation control over BLE.
- Performed research + experimentation into the novel uses of RF sensors on the spurious emissions of electronic devices.
- Integrated new features based on information theory into a ML model designed to use human biometrics to non-invasively detect malintent.

MIT Media Lab — Cambridge, MA
Assistant Researcher, Changing Places Lab — July 2016 - Present

Researched and designed ML models for quickly predicting the traffic and solar power potential of a model city; Implemented searching over possible changes to the city for a mock intelligence to offer suggestions to the user to optimize these metrics (and others) Developed a Unity application for real-time visualization of the model city.

Worcester Think Tank — Worcester, MA
CS Advisor — March 2015 - May 2015

Prepared and taught a class for kids aged 12-14 about the fundamentals of HTML, CSS, and JavaScript. Served as an advisor to inspire students to explore computers with a curious and endeavoring mindset.

PROJECTS + COMPETITIONS

Google IO Firebass — *July 2016, May 2017*

Won a global ARG competition to be the first to chase down the Firebase Firebass by solving puzzles as it fled through the web. Received tickets to Google IO 2017, attended May.

HackHarvard: Storeel — *October 2016*

Prototyped a web application that used Microsoft Azure NLP APIs to turn written stories into picture books by analyzing segments of text and finding a relavant image for each.

COMPUTER SKILLS

Languages: *Lots*-C#; Python; Java; *Some*-C/C++; Racket; Matlab; Verilog; *Little*-Julia
WebDev: Type/JavaScript; Angular; Node; MongoDB; HTML/CSS; Three.js
Tools: Unity; Mathematica; Photoshop; Blender (CAD); Microsoft Office
Misc: Git; (Arch)Linux; Vim; Emacs

INTERESTS

Gaming; Rock Climbing; Transhumanism; CS/Physics Theory; Computer Design