Alex Aubuchon

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

114 Hemenway St Apt 3, Boston, MA 02115

CONTACT INFORMATION
Phone: (978) 894-6108
Mail: alex.s.aubuchon@gmail.com
GitHub: `https://github.com/a-lxe`
Linkedin: `https://linkedin.com/in/a-lxe`

EDUCATION

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

Coursework: Advanced Algorithms, Theory of Comp, NLP, Quantum Mechanics, Electronics
Extracurriculars: Tutor for Discrete Structures (2017), Upperclassman Tutor (2016)
GPA: 3.8/4.0

WORK EXPERIENCE

Draper Laboratories — Cambridge, MA
Software Engineer, Machine Intelligence Group — *January 2017 - August 2017*

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

- Implemented the software interface in C# to a 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 Bluetooth.
- Performed research + experimentation into the novel uses of RF sensors on the spurious emissions of electronic devices. Used Arduino/C++ for hardware and Python for testing.
- Integrated new features with MatLab into a machine learning 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 in Python for quickly predicting the traffic and solar power potential of a model city. Implemented searching in Python 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/C# application for real-time visualization of the model city.

PROJECTS + COMPETITIONS

HackMIT: PacTravel — *September 2017*

Led the development of a webapp in Typescript where users play PacMan on Google Maps while the places they visit are logged into a data-rich itinerary for use afterwards in real life.

HackTheMachine - 2nd Place — *September 2017*

Won second place in a data science hackathon to use Navy ship sensors to improve readiness. Used correlations and PCA in Python to improve human readability of the high dimensional stream.

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 in AngularJS that uses 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: REST/Websocket APIs; TypeScript; AngularJS; NodeJS; HTML/CSS; Three.js
Tools: Unity; Mathematica; Photoshop; Blender (CAD); Microsoft Office
Misc: Git; (Arch)Linux; Vim

INTERESTS

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