

Alexander Sedgwick Aubuchon

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GitHub: <https://github.com/a-lxe>
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EDUCATION **Northeastern University** Boston, MA
BS in Computer Science, 3.9/4.0 GPA September 2015 - Dec 2019

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

WORK **Google** Sunnyvale, CA
EXPERIENCE *Software Engineer Intern, Node.js Team* May 2019 - August 2019

Node.js, Typescript, C++

- Made contributions to Node.js core and prototyped a faster Node.js dependency loader.
- Worked on API design of ESM Loader Hooks in Node.js core.

ASICS Digital Boston, MA
Data Engineer Coop, Platforms January 2019 - May 2019

Python, SQL, AWS, Terraform

- Diagnosed and mitigated urgent data collection breakages.
- Made significant automation and diagnostic improvements to AWS based ETL pipelines.

CERN, Compact Muon Solenoid Geneva, Switzerland
Software Engineer & Data Analyst Coop, EMTF January 2018 - August 2018

Python, React, Docker, OpenStack, C++, ROOT

- Built a platform for statistical tests comparing data quality between accelerator runs.
- Analyzed EMTF data and predicted post HL-LHC detector performance.

Draper Laboratories Cambridge, MA
Software Engineer Coop, Machine Intelligence January 2017 - August 2017

C#, Python, Matlab

- Implemented the USB software interface to a neuro-stimulation experimentation device.
- Performed research into the novel uses of RF sensors on the emissions of electronic devices.

MIT Media Lab Cambridge, MA
Assistant Researcher, Changing Places July 2016 - January 2018

Python, scikit, C#, Unity

- Developed ML models for quickly predicting the traffic and solar potential of a model city.
- Developed a Unity/C# application for real-time visualization of said model city.

PUBLICATIONS **Classification of Electronic Devices and Software Processes via Unintentional Electronic Emissions With Neural Decoding Algorithms** — link — March 2019
Laura J. Mariano, Alexander Aubuchon, Troy Lau, Onur Ozdemir, Tomo Lazovich, John Coakley

Real-time Machine Learning Prediction of an Agent-Based Model for Urban Decision-making (Extended Abstract) — link — July 2018

Yan Zhang, Arnaud Grignard, Kevin Lyons, Alexander Aubuchon, Kent Larson

COMPUTER **Languages:** *Extensive-* Python; Typescript; *Versed-* Rust; C; Lisp
SKILLS **WebDev:** Node.js; React+Gatsby; HTML/CSS
Tools: Unity; Mathematica; Photoshop; Blender (CAD); ROOT (Statistics)
Misc: Git; (Arch)Linux; Vim; L^AT_EX

INTERESTS Gaming; Rock Climbing; Electronics