Alexander Sedgwick Aubuchon

CONTACT INFORMATION

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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

WORK EXPERIENCE

Stripe — San Francisco, CA
Software Engineer Intern, Orchestration Team — *January 2020 - April 2020*
Golang, Kubernetes

- Built instance autoscaling for our Kubernetes cluster saving $1MM per year and significantly reducing infrastructure toil for product teams.

Google — Sunnyvale, CA
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 and Unity/C# worlds for quickly predicting and displaying the traffic and solar potential of a 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 SKILLS

Extensive: Linux, Git, Golang, Rust, Python, Typescript
Versed: LaTeX, C, C++, Lisp, Node.js, React

INTERESTS

Gaming; Rock Climbing; Electronics