# JACK MICHAUD

**Full Stack Engineer**

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## EXPERIENCE

### Full Stack Engineer

Metascouter, Inc ( metascouter.gg )

May 2018 – Present  Seattle, WA

- Constructed APIs (REST, GraphQL) and broadcast graphics for integrating data into major esports broadcasts.
- Designed and developed web infrastructure while coordinating with remote team.
- Created real-time data pipeline using MQTT, queueing, and CloudFormation to ingest data from computer vision software.
- Implemented serverless AWS architecture with DynamoDB, Lambda, and API gateway with GraphQL interface.
- Carried out growth marketing experiments with AdWords and Google Analytics
- Started closed beta engaging with 5 end users actively using our product
- Negotiated partner stake in company

### Software Development Co-Op

Solaria Labs ( solarialabs.com )

July 2018 – Dec 2018  Boston, MA

- Implemented serverless AWS data pipeline and generic CloudFormation template generation.
- Collaborated actively with 2-3 teams writing Python and JS backend code, JS frontend, and integrating the data pipeline.
- Evaluated open source and commercial business data for reliability against ground truth.

### Founding Partner

Harrow Search ( harrowsearch.com )

Oct 2015 – Present  Manchester NH

- Established LLC for a website that displays analytics from data scraped from YouTube, Twitter, Facebook, and Instagram.
- Created web application stack with Django, ReactJS, Selenium, and Docker. Implemented CI/CD in Gitlab.
- Supervised and directed three temporary contractors.

## PROJECTS

### PythonWebsocketRCE

*https://github.com/jack-michaud/PythonWebsocketRCE*

- Created a CLI for controlling captive JS and bash clients over a network.
- Designed an API for running distributed programs and for remotely executing code.

### WiFi Beacon Detection

*https://github.com/jack-michaud/wifi-beacon-detect*

- Created CLI that uses a wireless interface in monitor mode to find nearby probe requests.
- Learned to integrate with the LiFX Light Bulb API to turn on when certain probes are detected (e.g. if my phone is nearby, my light will turn on).

## EDUCATION

### Northeastern University

B.S. in Computer Science

Graduated: May 2020

- **Software Development**: Developed Software Engineering best practices (SRS documents, Scrum/Agile, testing)
- **Large Scale Parallel Data Processing**: Learned to design efficient algorithms in Hadoop and Spark
- **Systems Security**: Learned to mitigate operating system security in embedded, mobile, and desktop devices (RBAC, secure execution, chain of trust)

## SKILLS

**Languages**

Python | TypeScript/JavaScript | Java | C

**Frameworks**

Vue+Vuex | React+Redux+Hooks | Django | Django REST Framework | Apollo GraphQL

**Tools**

AWS, SAM, Terraform, Cloudformation | Docker | Emacs | Vim | CI/CD (Gitlab, CircleCI, Bamboo) | Relational Databases | Webpack

## INTERESTS/ACTIVITIES

- DJing and Music Production
- Hacking and Penetration Testing
- Entrepreneurship and Hackathons
- Collegiate Cyber Defence Club (CCDC)
- Campus Radio (104.9 WRBB)
- Hiking