

LEO THOMAS

DATA SCIENTIST – SOFTWARE ENGINEER



Washington D.C.



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<https://github.com/leothomas>

SUMMARY:

Data scientist and software engineer searching for a data engineering or related position. Extensive knowledge of AWS, python data ecosystem and webscraping in context of startups (AI, drone technology, distributed manufacturing), open-sourced software (neuro-informatics) and research (quantum computation). McGill Physics and CS grad (2017).

EXPERIENCE:

DATA SCIENTIST / BACKEND ENGINEER

NAR Technologies (startup)

Sep. 2018 – Sep. 2019

Beirut, Lebanon

- Refactored AWS backend for mobile application, reducing operation costs by ~85%, by migrating to a DynamoDB (NoSQL) database and AppSync (GraphQL) API
- Implemented autoscaling AWS resource provisioning and versioned updates of AWS backend by using Troposphere (Python) to generate Cloudformation templates
- Implemented generation of KML reports to visualize drone imaging data
- Created a Docker image with a local instance of the AWS database and API using Flask (Python), for development and testing
- Designed architecture for product licensing and implemented Stripe payment system
- Spearheaded implementation of agile methodologies (UI / UX, scrum / sprint)

DATA SCIENTIST / SOFTWARE DEVELOPER

3D4Pro (startup)

Oct. 2017 – Jun. 2018

Paris, France

- Analyzed and proposed improvements to 3D modeling time estimates using statistical analysis and machine learning (Sklearn, Jupyter)
- Designed and implemented webscrapers to automate market data collection (Selenium, Tor, Pandas). Organized data into dashboards for CRM and BI (Elasticsearch, Kibana)
- Contributed to client facing webapp (node.js/vue.js) frontend and AWS backend
- Implemented a CI pipeline for update deployments (Gitlab pipeline)

SOFTWARE DEVELOPER INTERN

McGill Centre for Integrative Neuroscience

May 2017 – Aug. 2017

Montreal, Canada

- Developed a module for quality control of medical imaging and patient data (Php, MySQL)
- Developed a data visualization tool for the Infant Brain Imaging Study (Python, Matplotlib)

SOFTWARE DEVELOPER INTERN

Identify3D (startup)

May 2015 – Aug. 2015

San Francisco, California

- Created a new user interface for encryption software (Java / JSwing)
- Automated and documented the setup of AWS web servers for product demos
- Maintained and operated 3D printers, managed customer orders

BARISTA – Starbucks

May 2014 – Aug. 2014

EDUCATION:

MCGILL UNIVERSITY

BSc. Physics and Computer Science (joint major)

Sep. 2013 – May 2017

Montreal, Canada

- Coursework in Physics (theoretical / experimental), Math (including Statistics) and CS
- 6 month exchange at **Universidad Del Salvador** (Buenos Aires, Argentina)

RESEARCH:

MCGILL UNIVERSITY

Quantum NanoElectronics Laboratory

Sep. 2016 – Dec. 2016

Montreal, Canada

- Developed a numerical simulation to study the effect of static disorder on quantum particle entanglement (Python, SciPy, Matplotlib)

FREELANCE:

LINKEDIN WEBSCRAPER

May 2017

- Developed a webscraper to gather content and metadata of public LinkedIn posts based on keyword searches (Selenium, Tkinter)

SKILLS:

Python ● ● ● ● ●

AWS ● ● ● ● ○

Git ● ● ● ● ○

Unix / Linux ● ● ● ● ○

Elasticsearch / Kibana ● ● ● ● ○

Docker ● ● ○ ○ ○

JavaScript ● ● ○ ○ ○

Java / MySQL / Php ● ○ ○ ○ ○

LANGUAGES:

French ● ● ● ● ●

English ● ● ● ● ●

Spanish ● ● ● ● ○

Arabic (Lebanese) ● ○ ○ ○ ○

* Dual citizen (USA / France)

GITHUB PROJECTS:

Simple Neural Network (Python):

Neural network created from scratch to better understand gradient descent and back-propagation. Now developing a genetic algorithm to teach it to play Snake.

Fire Simulation (Python):

Numerical simulation of a forest fire spreading through a procedurally generated terrain (Perlin Noise) using a BFS algorithm. Created to better understand numerical simulations and graph traversal.

WATER POLO:

Player May 2017
Libellule De Paris Paris, France

Player 2013 – 2017
McGill Poseidon Montreal, Canada

Coach (ages 8-12) 2011 – 2013
Soma Aquatics Mill Valley, CA

INTERESTS:

Cooking • Travel • Guitar • Literature