

# ALEX LAUNI

GitHub (<https://www.github.com/lamalex>)

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## Education

### M.S. Computer Science

Old Dominion  
University

Norfolk, VA

GPA: 3.8

#### Coursework:

Data Mining, High Performance Computing & Big Data, Algorithms & Data structures, Computer Architecture, Mathematical Methods in Computation, Cryptography.

#### Projects:

**LiftRight** || Swift, Rust, Matlab, iOS, 2D Graphics, HCI, CI/CD Repetition and set segmentation algorithm for early, online identification of weight training exercises using a single sensor, and gameified platform for guiding a user into modifying their form. Preparing to conduct a multi-week study to verify our application, and compare form metrics with, and without the LiftRight system.

Designed and built iOS application and Rust data-collection server.

#### LauneArAlgebra || Rust

Pure Rust implementation of a general purpose Matrix with least squares approximation, natural cubic spline interpolation, piecewise linear interpolation, and gauss-jordan elimination.

#### Trend seeking in NYC with CitiBike || Python, Apache Spark, Big Data

Leveraging GIS, Citibike, and IRS datasets to identify changing trends in New York City neighborhoods.

#### At-Risk Student Detection for Online Education Platforms || Python, Machine Learning, Data

Science Development and comparison of classical machine learning models, and data preparation techniques applied to the .

#### Associations:

**Association for Computing Machinery** | National member

**ACM-W** | ODU chapter vice-president (2020 - present)

### B.S. Computer Science

Temple University

Philadelphia, PA

GPA: 3.2

#### Coursework:

Algorithms & Data structures, Foundations of Computing, Discrete Mathematics, Calculus, Philosophy.

#### Internships:

**Jolicloud** | Paris, Fr. | Ruby on Rails, SQL, C#, Mono, Linux

**Google Summer of Code** | C#, Gtk, Mono

## Professional Experience

## Trilogy Education Service

**Full-Stack Developer Mentor** | Ruby on Rails, SQL, JavaScript, React, HTML, CSS, Heroku, AWS, Git  
Provided weekly 1-on-1 assistance and professional mentorship to students enrolled in Full Stack Web Development bootcamp provided through multiple universities. Provided technical, and career coaching to students as they progressed from creating static HTML and CSS websites to building complex, interactive web apps powered by Ruby on Rails, PostgreSQL, and React.

## U.S. Navy

**Navigation Electronics Technician (Submarines) First Class** | Operations, AC/DC/Digital electronics, TS/SCI, Instructor  
Designed, and taught curriculum for Navigation Supervisor course, which is delivered to senior submarine navigation personnel across the submarine force. Directly supervised 5 sailors responsible for safe navigation, and all preventative and corrective maintenance for ship's critical navigation and interior communication systems. Supervised maintenance workcenter for all navigation, and interior communication equipment. Awarded: Navy & Marine Corps Achievement Medal (6), Good Conduct Medal, Junior Sailor of the Year (2018)

## Canonical Ltd

**Software Engineer** | Python, C++, C, JavaScript, Linux, Bash, Jenkins, Bazaar, QA, Devops  
Developed automated user acceptance and integration testing framework for Unity desktop environment.  
Lead transition to continuous integration development model for multiple projects.

## Projects

**Environmental Chemistry** || R, Bash, HPC

2D correlation plot generation script for NMR data.

**Electron Pilates** || Python, React, Docker

Automated generation of electron excitation plots for data obtained via Raman and IR for Hatcher geochemistry lab.

**Qr Generator** || React, Docker

A simple live Text-to-QR generator developed for Hatcher geochemistry lab.

**Gnome Do** || C#, Mono, Bzr

Core maintainer of popular open-source application built on .NET.

**Moodle Dockerization** || Docker, PostgreSQL, Memcached  
Host, and administer a Moodle instance for my wonderful mom, a high school biology teacher. Dockerized a large PHP applications which serves over 100 high school students.