**EDUCATION .**

**Northeastern University**,Boston, MA  *May 2019*

*Candidate for Bachelo­­r of Science in Computer Engineering and Computer Science*

**GPA: 3.98/4.00**

*Relevant Courses*: Machine Learning & Pattern Recognition (Graduate), Algorithms, Object Oriented Design, Large-scale Parallel Data Processing, Probability & Statistics**,** Computer Systems, Linear Systems

*Accolades*: Honors Program, Presidential Global Scholar, Bruce Pelzer Merit Scholarship, Deans Scholarship

**TECHNICAL SKILLS .**

*Languages/Frameworks*: Java, AngularJS, Spring MVC, Guice, Mockito, HTML, CSS, JavaScript, C++, Linux (UI and CLI), C, CUDA, Python, Google Testing, CMake, MIPS Assembly, Verilog.

*Software*: S3, SQS, DynamoDB, Elasticsearch, Git, MATLAB, SolidWorks, ParaView.

**EXPERIENCE ­­­­ .**

**Amazon Robotics**, North Reading, MA *Jul 17* – *Dec 17*

*Software Engineering Co-op, Tools and Integration Team*

* Developed full stack websites and services using AWS, AngularJS, Guice, and Spring MVC.
* Created tools for automated fault detection and diagnostics across Amazon warehouses.
* Led creation of UI and supporting backend for configuration auditing tool used across US and EU.
* Developed multi-service root-cause detection tool greatly reducing time spent by technical support.

**Northeastern University**, Boston, MA *Mar 16* – *Present*

*High Performance Computing Team, Student Cluster Competition*

* Compete internationally at supercomputing conferences, United States Champions in Denver at SC17.
* Optimize code and hardware solutions to run HPC applications within a 3 kilowatt power limit.
* Worked on cloud portion of the competition using Microsoft Azure and the CycleCloud CLI.
* Focused on data visualization and machine learning applications such as Paraview and Mr. Bayes.

*Interactive Clustering Engine, NSF-funded Research Experience (REU)* *May 16 – Aug 16*

* Created library for high-performance machine learning visualization system.
* Collaborated with eight student team on accelerating machine learning operations in CUDA and C++.
* Conducted algorithmic analysis and profiling of several libraries to implement K-means clustering.

**PROJECTS .**

*Machine Learning Course*: 4-month Coursera class taught by Andrew Ng from Stanford University.

*One-Handed Input Device*: Led team to make game controller with 3D printing and Arduino parts.

*Data Visualization* [*Website*](https://mlamontagne8.github.io/data_visualization_hh/): Applied JavaScript D3 API to graph and animate weather data.

*HuskyHacks Hackathon*: Best First Hack award for a 3D-printed Arduino based self-balancing robot.

*Facial Recognition Mobile App:* Presented research poster on the design of OpenCV-based mobile app.

**LEADERSHIP .**

*GPU Programming Class Teaching Assistant, Northeastern University Sep 16 – Oct 16*

* Prepared and graded homework assignments, answered questions, and ran bash scripts to

determine the winners of class competitions. Class covers CUDA coding and optimizations.

*REU Research Mentor, Northeastern University**Jul 16 – Aug 16*

* Taught a high school student the basics of Git, C++, and Eigen libraries to contribute to our project.

*Training, Northeastern University*

* Honors College Leadership Retreat, Gordon Engineering Leadership Bootcamp, Lead-360 BLUEPRINT.