Thomas **Harmon**

Computer Engineer · Software Developer

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Education

Northeastern University | GPA: 3.85/4.0 *Boston MA*

Bachelor of Science in Computer Science and Computer Engineering *May 2020*

Relevant Courses: Artificial Intelligence, Intro to Machine Learning, Algorithms & Data Structures, Software Design, Object Oriented Design, Computer Systems, Logic & Computation, and Database Design

Skills

Languages Java, JavaScript, Python, C/C++, SQL, CSS, HTML, MATLAB

Frameworks and Tools React, NodeJS, jQuery, J2EE, Spring, Hibernate, Git, Docker, Postgres, Gatsby, ROS

Work Experience

PowerAdvocate *Boston MA*

Software Developer Intern *July 2019 - Dec. 2019*

- Planned and updated learning material based on past student performance which helped further students' understanding.
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Northeastern University RIVeR Laboratory *Boston MA*

Undergraduate Researcher *Jan. 2018 - July 2018*

- Integrated open-source robotics libraries into a ROS framework using python, to develop facial recognition and person following modules.
- Competed in a RoboCup@Home competition in Montreal, Canada as part of a team of researchers. Placed 4^{th} internationally.
- Researched optical flow and its applications into autonomous navigation, implementing multiple optical flow algorithms and testing their performance on real hardware.

Draper Laboratory *Cambridge MA*

Advanced Concepts Intern *Jan. 2017 - July 2017*

- Created a custom back-end Java application to translate system engineering models from the modeling language OpenMETA to sysML.
- Built a graph database to support continuous integration of system engineering models to modernize the file-based approach in use.
- Created an interface to push and pull data using a RESTful API from the graph database and auto-generate a sysML model. Iterated on the design to incorporate live differencing of the model.
- Utilized ANSYS Electronic Desktop to model the effect of varying RF wavelengths on the operation of a simple PCB based on trace dimensions.

Extracurricular Activities

Wireless Club *Boston MA*

Vice President *Oct. 2015 - Sept. 2017*

- Focused on revitalizing interest and participation in an electrical engineering focused club. Developed a club website to improve club visibility.
- Organized introductory workshops which raised newcomer retention, doubling club-wide weekly meeting attendance.
- Hosted 48-hour long hackathons, challenging 20+ competing teams, to create themed electronics hardware.

Diablo Glass School *Boston MA*

Glassblowing Hobbyist *Sept. 2015 - Present*

- Focused on revitalizing interest and participation in an electrical engineering focused club. Developed a club website to improve club visibility.
- Organized introductory workshops which raised newcomer retention, doubling club-wide weekly meeting attendance.

Technical Projects

Futures Database (Ongoing) *Boston MA*

Databases, Data Analysis | Python, MySQL *Spring 2019*

- Collecting OHLCV data and volume histograms for multiple futures contracts to be used in a later project on data analysis and visualization.

Personal Website (Ongoing) *Boston MA*

Front-end Web Development | HTML, CSS, JavaScript, Bootstrap *Spring 2019*

- Using Twitter's Bootstrap, developing a mobile and desktop-friendly personal website to display projects and a professional portfolio.