Thomas **Harmon**
COMPUTER ENGINEER · SOFTWARE DEVELOPER

(617)-901-4565 | thomas.alan.harmon@gmail.com | thomasharmon808 | tharmony | www.harmon.tech

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, Database Design, Electronics, and Digital Logic and Design

Skills

Languages	Java, JavaScript, Python, C/C++, SQL, CSS, HTML, MATLAB
Frameworks and Tools	React, TensorFlow, J2EE, Spring, Hibernate, NodeJS, Git, Docker, Gatsby, ROS

Work Experience

PowerAdvocate   *Boston MA*
FULL STACK SOFTWARE DEVELOPER INTERN   *July 2019 - Dec. 2019*
- Developed new features for front end applications using React and back-end systems using Spring MVC, Hibernate, J2EE, and SQL databases.
- Spearheaded the redesign of a J2EE monolithic web application into a Service Oriented Architecture. Lead the transition to a Star Schema, creating a 2-10x speedup of key customer features. Leveraged performance logging data to optimize the slowest SQL queries.
- Collaborated with other developers by pair programming. Practice Agile Development under a Continuous Flow framework.

Northeastern University RIVeR Laboratory   *Boston MA*
UNDERGRADUATE RESEARCHER   *Jan. 2018 - July 2018*
- Developed facial recognition and person following packages using ROS for the Toyota HSR to be used in a RoboCup@Home competition.
- Competed in a RoboCup@Home competition in Montreal, Canada as part of a team of researchers. Placed 4th internationally.
- Researched optical flow and its application for autonomous navigation, implementing multiple algorithms and testing their performance.

Draper Laboratory   *Cambridge MA*
ADVANCED CONCEPTS INTERN   *Jan. 2017 - July 2017*
- Created a Java application to translate system engineering models between the modeling languages OpenMETA and sysML.
- Designed a graph database to support continuous integration of system engineering models to modernize the file system approach in use.
- Integrated database and Java app into a continuous integration workflow for engineering models, greatly improving engineering efficiency.
- Utilized ANSYS Electronic Desktop to model the effects of varying RF wavelengths on the operation of a 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.

Punahou School   *Honolulu, HI*
GLASSBLOWING HOBBYIST   *Sept. 2015 - Present*
- One of three students chosen out of over 30 enrolled for an exclusive art show at an alumni event.
- Only student chosen for a month long summer apprenticeship under glassblower Russ Katto.

Technical Projects

Touchless User Interface   *Boston MA*
COMPUTER VISION, MACHINE LEARNING | PYTHON, OPENCV, TENSORFLOW   *Summer 2019*
- A year long, team capstone project to build a computer-vision based touchless user interface with a monocular RGB camera and machine learning. Recognizes static or dynamic gestures and allows new gestures to be trained on demand and linked to a repository of IoT applications.

Harmon.tech | Personal Website   *Boston MA*
WEB DEVELOPMENT | REACT, JAVASCRIPT, HTML, CSS, GATSBY   *Summer 2019*
- Using React and Gatsby, developed a responsive website to display personal projects and a professional resume.