ZACHARY BAUER

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EDUCATION

Northeastern University   **Boston, MA**
Candidate for Bachelor of Science in Bioengineering, Minor in Computer Science   May 2020
Relevant Courses: Bioinformatics 1; Biomedical Instrumentation; Object Oriented Design; Bioelectricity; Fundamentals of Computer Science 1&2; Bioengineering Statistics; Engineering Computation; Engineering Design
GPA: 3.47
Honors/Awards: Dean's List, Honors Program
Activities: Acting Out (Theater), Jumpstart (Preschool Classroom Volunteering), Northeastern Association for Computing Machinery, BioMedical Engineering Society, Choral Society, NU Sound (Acoustical Engineering)

SKILLS

Proficient: Git, Python (Flask), Java, Linux (Ubuntu), Matlab (Simulink), HTML, Javascript (jQuery)
Familiar: C++, C#, Arduino, C, Javascript (Node, Angular, React), Go, Perl, AutoCAD, SolidWorks, Unity

PROFESSIONAL WORK EXPERIENCE

ProGlove   **Munich, Germany**
Software Tinkering Intern   July 2018 - December 2018
- Refactored Python automated firmware testing framework and added automated testing of Bluetooth Low Energy (BLE) functionality to verify new firmware features
- Updated device configuration website and analyzed usage statistics to determine future improvements using Ember JS and Amazon Web Services (AWS)
- Improved product demos for marketing that were built with Flask and MySQL by refactoring backend structure and enabling addition of new showcases
- Optimized a prototype of a potential data collection system using Go, Python, Influx DB, and Grafana

First Light Biosciences   **Bedford, MA**
Software Engineer Co-op   July 2017 - December 2017
- Developed a Java program to operate a medical device for the rapid detection of hospital borne infections as part of an AGILE team with a continuous integration environment
- Maintained in-house imaging applications in Java swing by addressing bug reports and feature requests
- Created a python test program to assist in integration and testing of new hardware
- Implemented functionality for encoding and decoding 2d barcodes to better track manufacturing information of components

RESEARCH

Interdisciplinary Affective Sciences Laboratory, Northeastern University   **Boston, MA**
Research Assistant   May 2016 – May 2017
- Analyzed personality traits as a predictor of prosocial behavior using feature selection and clustering
- Developed a project website and data visualizations (D3) of user demographic information
- Implemented and developed experimental protocols in study with over 300 participants

HACKATHON EXPERIENCE

BoDo, *McHacks (2018):* A web tool for automatically assigning chores among roommates- still in use today
Daily Briefing, *McHacks (2017):* Prints news articles, a daily joke, the weather, and custom reminders every morning
Gotta Go Real Fast, *HuskyHacks (2016):* Unity racing game using a recorder as a controller (Winner - Best Design)

INTERESTS

Music composition, film production, web development, intermediate German, euphonium, running, tycoon games