

Joseph Breda

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Education

University of Massachusetts Amherst (Commonwealth Honors College) September 2015 - May 2019

Bachelors of Science in Computer Systems Engineering

GPA: 3.88/4.00

Relevant Coursework: Data Structures (Java), Software Intensive Engineering (C), Signals & Systems, Hardware Organization, Electronics, Multivariable Calculus, Differential Equations

Research

University of Massachusetts Amherst

Amherst, MA

Solar-Weather Metrics Database REU

May 2017 – August 2017

- Developed, tested, and debugged program in Python to data mine and construct a large database used to model and predict solar panel output weather forecast data.
- Data mined weather and solar metrics using BeautifulSoup web scraping and XML data querying and constructed a database using Pandas
- Quickly determined libraries and techniques to use and demonstrated self-starter capabilities
- Performed data analysis and described data schema in co-authored research paper

Boston College

Newton, MA

Biodegradable Plastic REU

May 2015 – June 2015

- Converted cellulose fibers to organized polymers with plastic like qualities as a plastic alternative
- Gained experience using lab equipment and a familiarity in a research and development environment

Projects

Ping Terminal Application

September 2017 - Present

- Developing java reminder app designed to reflect personal style of note taking with entries stored through a system of priority due to importance, due date, long term, and short term.
- Implementing tree data structure as well as bash commands to allow application to operate out of terminal

Dictionary tool Program

September 2016 – January 2017

- Developed a Java program that takes in a dictionary text and performs multiple functions, including searching, sorting, scrabble helper, spell check, and anagram generator
- Gain experience with data structures in Java such as trees, heaps, hash tables, and linked lists

Music Production Engineering

May 2016 - Present

- Composed and produced original music using industry standard Ableton Live 9
- Self-taught proficiency in mixing, mastering and sound design with both hardware and software
- Developed creative and artistic sense as well as ability to self teach and self critique

Skills

Languages: Java, Python, C, JavaScript

Software/Tools: HTML, CSS, Linux, Bash, Git, MATLAB Pspice, Adobe, Ableton

Characteristics: Entrepreneurship, Compartmentalization, Self Teaching, Creativity, Organization, Minimalistic, Musician