Casey Ryan

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Education

University of Massachusetts Amherst — Amherst, Massachusetts

Pursuing a Bachelor of Science in Computer Science — *Aug 2019 – May 2023*

- Relevant Coursework: Data Structures, Programming Methodology, Introduction to Computation, Linear Algebra, and Multivariable Calculus
- 3.5 GPA, John and Abigail Adams Scholarship Recipient
- Former NCAA Division 1 Cross Country/Track & Field Athlete

Experience

Software Engineering Intern — Jun - Aug 2018 & 2019

Thermo Fisher Scientific — *Tewksbury, Massachusetts*

- Wrote and maintained testing suite in JavaScript and the Jasmine testing framework for a new REST API to ensure reliability for engineers and customers, while also enforcing test-driven-development
- Developed an application in Java and JavaFX to streamline software initialization, converting a 6 hour manual task into a 15 minute automated background task, and allowing engineers to spend their time doing more valuable work
- Collaborated with other developers in an agile scrum based environment

Machine Learning Data Intern — Nov 2020 - Jan 2021

iRobot — *Bedford, Massachusetts*

- Made significant contributions to the data set used for training machine learning models
- Utilized large data sets of images to construct detailed floor plans/maps
- Utilized business tools, such as Confluence and Jira

Event/Sales Host — May 2017 - Mar 2019

Wamesit Lanes — *Tewksbury, Massachusetts*

- Worked as a host for sales events
- Combined customer service with restaurant FOH and sales technology

Projects

JavaScript Interpreter | *JavaScript*

- Developed a JavaScript Interpreter using JavaScript
- Utilized programming principles such as higher-order functions, testing suites, and closures

Pseudo-Yelp Data Sorter | *JavaScript*

- Developed a program to take in a JSON data set of businesses and filter/reduce based off of various criteria
- Utilized programming principles such as fluent design patterns, higher-order functions, and comprehensive testing

Nondeterministic Finite State Automata | *JavaScript*

- Implemented an abstract Nondeterministic Finite State Automata in JavaScript
- Utilized programming principles such as fluent design patterns, higher-order functions, memento design pattern, and states

Stable Matching | *JavaScript*

- Developed a program to test given objects to confirm they are valid sets according to the stable matching problem
- Increased ability to write tests for code that I might not yet necessarily understand, reinforcing the ideas of test-driven-development

Technical Skills

Languages: Java, Python, JavaScript
Frameworks: Node.js, Flask, JUnit, Jasmine, Selenium
Developer Tools: Git, Subversion, Jira
Libraries: Requests, NumPy
Other: FTP, REST APIs, Jupyter Notebook, SSH, LaTeX