

# MICHAEL RIZZO

845-558-1067 | mjrizzo22@gmail.com | github.com/mjrizzo22

## EDUCATION

### Rutgers University - New Brunswick

Sept 2015 -- May 2020

*Bachelors in Computer Science / Minor in Philosophy*

*-Inaugural Honors College Member*

*-Dean's List, Fall 2019*

## PROJECTS

### Train Schedule and Reservation App

Jan 2020 -- May 2020

- Provided 2 different levels of user interface for accessing and updating 4 services using MySQL and Java Server Pages
- Maintained an Apache Tomcat Server on an Amazon Web Services Virtual Machine facilitating different Javascript frameworks like Bootstrap and Semantic UI
- Lead a 6 person team over 5 Github branches to organize service updates and help maintain a stable site version on the main branch

### Naive-Bayes and Perceptron Demonstration

Jul 2019 -- Aug 2019

- Directed construction of a Java based REPL for testing and presenting different machine learning parameters
- Advised the Naive-Bayes model while building the Perceptron model in an Agile Pair-Coding system
- Improved number and face labeling accuracy from 95% to 99% by applying different activation functions

### Path-Finding on Unknown Terrain Visualizer

Jun 2019 -- Jul 2019

- Developed and optimized 5 alternate versions of the heuristic-based, path-finding algorithm A\* star to traverse maps with unknown terrain and unique goals
- Devised a map-generating python script and analyzed 50 randomized trials of runtime data per additional heuristic, balancing memory storage and complexity, finally reducing the average number of possible paths calculated by 5 to 10%
- Delegated visualization using Python, showcasing the path-finding functionality and the minimal amount of steps each variation used to reach the goal
- Prepared and presented a final report, explaining methods and suggestions on how to encode the current 40 byte per cell model to only 16 bits

### LambdaGators - Educational Applet

Mar 2019 -- May 2019

- Created a tool that explains the complexities of Lambda calculus in a clear and concise way by incorporating static illustrations from earlier in the course
- Demonstrated course knowledge in an engaging tool that was integrated by the professor into the future curriculum
- Built using the Python game engine, Pygame, the applet reorganizes a user input expression while detailing the steps taken to simplify it

## TECHNICAL STRENGTHS

**Languages:** Python, Java, C, HTML/CSS, MySQL | **Technologies:** Amazon Web Services, Git, IntelliJ, Eclipse

## WORK EXPERIENCE

### Rutgers Learning Centers - New Brunswick

Sept 2017 -- May 2020

*Writing Coach*

- Instructed more than 100 students a semester on planning graduate and undergraduate written projects
- Researched relevant background material on student requests to help improve their current and future assignments

### Corning Glass Lab at Rutgers - New Brunswick

Sept 2016 -- Dec 2016

*Student Researcher*

- Produced stable glass samples for safely containing nuclear waste in NSF-funded project

## EXTRACURRICULARS

### Rutgers Art Business Club - New Brunswick

Jan 2018 -- Jan 2019

*Social Media Director*

- Pioneered a new club by advertising across facebook, Instagram and email
- Facilitated a crossover series of talks with the Rutgers BRAIN club on the psychology of marketing

### 90.3 FM The Core Radio - New Brunswick

Apr 2016 -- Dec 2016

*Development Director*

- Negotiated underwriting contracts with local companies, raised funds for CoreFest concert
- Collaborated closely with the Business Director and other E-board staff to coordinate fundraising strategies and events

**Member:** IEEE, USACS, Rutgers Writing Club, Rutgers Philosophy Club