Matthew Joseph Bisicchia

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Objective

Motivated to apply work ethic to serve software and/or hardware purposes with team members in a collaborative environment, and present/public speak in product demos.

Employment/Volunteerism

Software Engineer Co-op, Lockheed Martin **May '20 – Sept. '20; May '21 – Jan '22**

- Updated legacy code and developed new features, wrote and performed tests (for level 1 and level 2/regression testing)
- Scrum, Agile framework; member of highly collaborative, DevOps driven team; carried out product demos to public speak/present before 40 other engineers/managers

Computer Science Tutor **Fall 2019, Fall 2020, Spring 2021**

- Included assisting a Fall 2019 class of 16 students in Intro. to O.O. Programming
- Realized passion for teaching and helping fellow colleagues

Resident Assistant, Rowan University, Glassboro, NJ **2019-2020**

- Oversaw floor of 22 residents. Enforced policy. On duty with another resident assistant approximately 4 times per month for the entire building of about 350 freshmen.
- On call during night 2-3 times a month. Resolved lockouts. Wrote incident reports and duty logs. Performed health and safety inspections. Provided resources to students.
- On team with strong family vibe: taught importance of working together

Maintenance, St. Joan of Arc School and Church, Marlton, NJ **Summer 2018**

Volunteer Service, Virtua Marlton Hospital, Marlton, NJ **2018**

- Volunteered in the surgical waiting room by assisting families of patients waiting for information. Maintained confidential paperwork regarding the status of patients.

Programming Project Experience

Development of Cloud Applications and Website

- Developing personal website using Node.js and React.js; deployed using AWS
- Includes custom-built **"My Dashboard" App** (Java Spring and Angular).
- Also includes work-in-progress custom-built **"BioLab" App** (React, Redux, Express) (in the personal website's monorepo) (www.matthewbisicchia.com/mainSite/projects)
- Both specify RESTful APIs to connect to MySQL databases (AWS RDS)
- Code repositories accessible on GitHub (link at top of Resume)
- Personal site will store knowledge/original notes learned during college (ex, electronics theory), as well as other side projects: for knowledge retention as well as for education
- Will include interactive visual diagrams currently being built with JS, HTML, and CSS

Development of Hospital-based Medical Software System

- Currently on team with Rowan University in assisting the growth of an iOS/Android platform, to integrate to a Node backend & React web frontend for medical personnel.

Research of Efficiency of Ensemble Models for ICU Mortality Prediction

- Analyzed efficiency of hyperparameter-tuned Scikit-learn Machine Learning models in predicting 24-hour patient survival in ICU. Part of team at Rowan University.
- Experience with Big Data; utilized techniques/tools such as SMOTE, Grid Search, Numpy, Pandas, Confidence Intervals, ROC AUC scoring, K-Fold Cross Validation
- Investigated Bagging, Boosting, Gradient Boosting, and Random Forest classifiers. Wrote scripts in the Python programming language, ran jobs on Linux server.

Web Game

- Started developing a 2D game in JavaScript. Learned through self-study. Created quick open-source boiler plate code template for a 2D web game, which is available on GitHub (link at top of Resume).

Education:

Rowan University, Glassboro, NJ; Class of 2022

Graduate*, GPA: 3.91/4.00; *Summa Cum Laude

- Bachelor of Science - **Electrical and Computer Engineering**
- Minor - **Computer Science**
- '20 – '21 President of Upsilon Pi Epsilon, CS Honors Society, Rowan Chapter
- Honors Program; Tau Beta Pi Engineering Society

Experience with:

- Object Oriented Programming and Design
- Algorithm Development, Data Structures
- Knowledge of Functional Programming Paradigm
- Website/Application Development
- Public Speaking, Product Demos
- Amazon Web Services
- Linux; Oracle VM Box
- JavaScript
- TypeScript
- Node.js
- Express.js
- React.js
- C++
- Java
- Spring Boot
- C#
- Python
- Visual Basic
- RESTful API; Insomnia, Postman
- Redux
- Angular
- HTML5 and CSS
- MySQL database
- MongoDB
- Git; GitLab, GitHub, Bitbucket
- CI/CD Pipeline
- Test-Driven Development (L1, L2, Regression)
- Unit testing (work in xUnit)
- JIRA/Communication/Teamwork/Agile/Scrum
- Scikit-learn
- Kali Linux (for Penetration Testing)
- Unity Game Engine
- MATLAB
- Verilog HDL
- Cadence Virtuoso
- Bi-Literacy in the Italian Language

Completed Coursework:

- Honors Data Structures and Algorithms
- Honors Design and Analysis of Algorithms
- Honors O.O. Programming/Data Abstraction
- Foundations of Computer Science
- Principles of Biomedical Systems and Devices
- Advanced Cybersecurity (Graduate Level)
- Digital Signal Processing, Signals and Systems
- Intro. to IOT (Graduate Level)
- Computer Architecture, Electronics, Intro. to Digital Systems, Electrical Circuit Analysis, Intro. to Embedded Systems, Engineering Electromagnetics, Intro. to Systems and Control