Russell Binaco

CONTACT INFORMATION

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SKILLS

- **Secret Level Security Clearance**
- Java (object oriented design)
- MATLAB
- C/C++
- Python
- Databases with MySQL
- Machine Learning
- Public speaking and writing skills
- LINUX/UNIX
- Microprocessor Programming
- OnShape/SolidWorks CAD software
- Scheme, Ada, Prolog, Lua, Assembly
- Breadboard and FPGA board use
- Verilog

EDUCATION

Current M.S./B.S. Student

Rowan University (RU), NJ

Expected Graduation: Spring 2020

Current GPA: 3.95

M.S. Computer Science

B.S. Computer Science

B.S. Electrical & Computer Engineering (ECE)

Minor in Mathematics

Bantivoglio Honors Concentration

Certificate of Undergraduate Study in Spanish

Computer Science Courses

Graduate Databases (2018)

Grad. Design & Analysis of Algorithms (2018)

Software Engineering (2018)

Programming Languages (2017)

Data Structures and Algorithms (2016)

Object-Oriented Programming and Data Abstraction (2016)

ECE Courses

Embedded Software Design (2018)

Digital Signal Processing (2018)

Systems and Control (2018)

Engineering Electromagnetics (2017)

Computer Architecture (2017)

Electronics I (2017)

Principles of Electric Circuit Analysis (2016)

Math Courses

Ordinary Differential Equations (2017)

Linear Algebra (2016)

Calculus III (2016)

AWARDS AND RECOGNITION

Regularly Awarded University Scholar and Dean's List, RU

WORK EXPERIENCE

Innovative Defense Technologies

Software Engineering Intern   May 2018-August 2018

Worked on a research team integrating new technologies (Docker).

Wrote a test plan to assist in code V&V and maintenance/debugging.

Rowan University

Learning Assistant   September 2016+

Helped explain complex object-oriented concepts to students, including design patterns, GUI development, abstraction, file I/O, polymorphism, and inheritance.

Helped facilitate in-lab coding in Intro to Java (Fall 2017-Present)

Tutor   September 2016+

Helped students of various math and computer science courses with homework, labs and studying.

Helped train and guide new tutors.

ADDITIONAL PROJECTS

Used Machine Learning to classify the level of cognitive decline in Alzheimer's patients from Clock Drawing Test data

Implemented Laser Tag using an STM microprocessor over Wi-Fi.

Built an object-following Sumo Robot with a microcontroller.

Coded a microprocessor with 38 functions (datapath and control unit) using Verilog and Schematics via Quartus.

Java: implemented a Symbol Table Reader to process compiled C++ object files and reconstruct their data structures in a usable format.

Java: coded a program to simulate course registration of a Rowan student using a GUI.

Java: implemented abstract data types for Stacks and Queues using arrays, and for Lists using both arrays and a circular, doubly linked structure of Node objects. Implemented iterative MergeSort and recursive QuickSort.

MATLAB: Implemented a kNN classifier for photo recognition; Implemented a signal-to-noise ratio predictor for speech samples.

Created a closed-loop control system using a microprocessor PWM to drive a fan controlling the temperature of a voltage regulator.

Created an Amazon Alexa skill that accessed the Clover POS API.

AFFILIATIONS

Upsilon Pi Epsilon Computer Science Honors Society

Rowan Chapter Vice President 2017

Rowan Chapter President 2018

Tau Beta Pi Member, Engineering Honors Society

Pi Mu Epsilon Member, Math Honors Society

American Institute of Aeronautics and Astronautics (AIAA)

Student Government Association (SGA) Representative Spring 2017

Fundraising Chair, Spring 2016-Fall 2016

Volunteered in Back to the 'Boro 2016, giving back to the community surrounding Rowan University (representing AIAA)

Association of Computing Machinery (ACM)

Attended ACM Programming Contest 2017, 2018