RAYMOND YUAN

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EDUCATION

Rice University, Houston, TX GPA: 4.00/4.00 May 2019

Bachelor of Science in Computer Science and Bachelor of Science in Mathematics

Relevant Coursework: Multivariable calculus, Linear Algebra, Probability and Statistics, Introduction to Program Design, Reasoning about Algorithms, Algorithmic Thinking, Introduction to Computer Science, Fundamentals of Computer Engineering, Differential Equations and Linear Algebra

On President's Honor Roll – Fall 2015, Spring 2016

TECHNICAL SKILLS

- Proficient in: Python, Wolfram Mathematica, Java
- Comfortable in: Matlab, HTML, C, C#
- Software and Framework: Android Studio, Unity3D, Arduino, Eagle PCB Design, Engineering Design Process

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EXPERIENCE

Neosensory, *Applications Engineer Intern*, Houston, Texas May 2016 - Present

- Developed algorithms for music "sensationalizer," which included beat detection, adaptive quantization and preprocessing fourier transforms of music.
- Built apps in Android Studio and Unity3D
- Helped code micro controller in Arduino for specific applications
- Performed scientific experiments to determine best actuator for applications, performed statistical analysis, wrote technical memos

GSI Environmental Engineering Firm, *Data Analyst Intern,* Houston, Texas June 2015 - July 2015

- Performed Statistical analysis in Excel and Wolfram Mathematica on contaminated and remediated sites to analyze relative performance of different remediation techniques
- Researched, wrote technical memos, and presented on Solarization and Thermal Heat Transfer

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PROJECTS

Hidden Markov Models

- Created and implemented Viterbi algorithm to tag parts of speech. After learning from base training data, the algorithm could accurately tag parts of speech at greater than 90% accuracy.

Spotify Artist Playlist Connector

- Wrote an algorithm that utilizes breadth-first search to generate and create a graph of all Spotify artists to generate a playlist based on the shortest path between two artists.

Pumani bCPAP Monitoring System August 2015 - May 2016

- Created a functional alarm system add on to the Pumani bCPAP to notify technician when insufficient air pressure is being delivered neonates through bubble frequency detection and interpreter
- Designed and built printed circuit board that utilizes infrared light, band pass filters, and comparator, comprising an analog front end, digital alarm circuit, and a timer circuit, to determine presence of bubbling
- Managed budget, wrote technical memos, presented the project, worked with teammates to communicate and reach final design solution throughout entire design process.

Wolfram Demonstrations July 2014

- Researched, presented on, and modeled behavior of equilibrium points in two-dimensional systems of differential equations and the Scuderi Split-Cycle engine; published both demonstrations on Wolfram Demonstrations

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LEADERSHIP AND ACTIVITIES

Fitness Officer of Rice University Cloud 9 Ultimate Frisbee Team, Rice Owls Wrestling, Rice Computer Science Club, and Assistant Wrestling Coach at St. John's High School