RAYMOND YUAN

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github ▪ Personal Portfolio Site ▪ linkedin

EDUCATION

Rice University, Houston, TX — President's Honor Roll – Fall 2015, Spring 2016 — May 2019
Bachelor of Science in **Computer Science** — Cum. GPA: 3.90/4.00

Relevant Coursework: Statistical Machine Learning (Graduate Level), Stanford Machine Learning (Coursera), Fundamentals of Parallel Programming, Introduction to Computer Systems, Multivariable Calculus, Linear Algebra, Probability and Statistics, Introduction to Program Design, Algorithmic Thinking, Fundamentals of Computer Engineering, Introduction to Engineering Computation, Differential Equations and Linear Algebra

TECHNICAL SKILLS

- **Software: Fluent in** Python, Wolfram Mathematica; **Proficient in:** Matlab, HTML, C, C#, and Java
- **Frameworks:** Git, Android Studio, Unity3D, Arduino, Eagle PCB Design, Soldering (SMD, through-hole)

EXPERIENCE

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

- Developed algorithms for music "sensationalizer," which included **beat detection**, **adaptive quantization**, Fourier transforms of music. Prototyped the algorithm in Python and wrote it in C for real-time application.
- Built apps in **Android Studio** (using Java) and **Unity3D** (using C#), coded firmware in **Arduino.**
- Performed scientific experiments to determine best implementation for applications, performed statistical analysis, wrote technical memos, and presented on technical projects.

PROJECTS

Lung Cancer Detection (Data Science Bowl) — March 2017 - Present

- Developing algorithms to improve lung cancer detection by using **candidate generation, 3D convolutional neural networks,** and **thresholding.** Implemented using **Keras** and **TensorFlow.** Work in progress.

Image Classification on CIFAR-10 using Convolution Neural Network — April 2017

- Implemented entire convolutional neural network from scratch in **python** (wrote all layers: **convolution**, **activations**, **pooling**, **dropout**, etc.) using **feedforward** propagation and the **back propagation** algorithm.

Image Classification on Cats vs. Dogs (Kaggle Competition) — January 2017

- Created image classification model to detect cats vs dogs using **convolutional neural networks,** implemented in **Keras** and **VGG16** architecture. Achieved **>95%** accuracy on test data.

Motivate Me: Rice Hackathon HackRice 2016 — October 2016

- Created a social, organizational, and motivational app that encourages you and others to work towards a shared goal though competition. Uses **Firebase API** to dynamically update databases.
- Implemented a seamless interaction between the frontend (using **HTML** and **CSS**) and backend in **Javascript**. Wrote the infrastructure that controlled the backend portion of storing and updating information.

LEADERSHIP AND ACTIVITIES

Rice University Cloud 9 Ultimate Frisbee Team — August 2016 - Present

- *Fitness Officer:* Lead and organize entire team warm up every practice. Coordinate and design external practice workouts, routines, and drills.

Kaggle Competitions — January 2017 - Present

- Work on and compete in Kaggle Competitions.

Auxiliary Activities: Kaggle Club, Compete in Kaggle competitions, Play for the Houston Ultimate Frisbee Team Space City Ignite; Rice Owls Wrestling; Rice Computer Science Club; and Assistant Wrestling Coach at St. John's High School