Raymond Yoo

Rutgers University — Bachelor of Science: COMPUTER SCIENCE- Honors Track

officialraymondyoo@gmail.com   201.410.4223

About Me

Technical Skills: C, Python, Java, Go, Javascript, Haskell, Swift, Unix/Linux, Bash, Firebase, MongoDB
Web & Mobile: UIKit and SwiftUI, Android, HTML/CSS, Node.js, React
Languages: Fluent in Korean and English
Interests: Music, AI, Neuroscience, Competitive Programming, Math, Volleyball, Mental Health

Work Experience

Adventure Co.   Remote (Summer 2020)
- AI/Web Intern
- Analyzed audio data both traditionally and after converting audio data into spikes (event-based data) for the use of spiking neural networks for classification
- Collaborated in developing a webpage game using React, based on music and emojis

Rutgers University (Computational Brain Lab + Machine Learning Lab)
Advisor: Konstantinos Michmizos and Sungjin Ahn   Piscataway, NJ (Jan 2020-Dec 2020)
- Undergraduate Research Assistant - ML, Deep Learning, Robotics, Deep Reinforcement Learning (DRL)
- Developed several state of the art DRL algorithms with spiking actor networks using PyTorch
- Wrote baselines for measuring the performance of neuromorphic versions of DRL algorithms
- Worked on debugging deep learning models in PyTorch in a linux environment
- *Accepted publication at CoRL20 (see below for link to published paper).*

Promise Summer School   Leonia, NJ (Summer 2018)
- Teacher Assistant - Mathematics and Computer Science
- Taught 5th-8th grade students foundational mathematics depending on their level
- Used scratch to interactively teach students the basic principals of computer science

Personal Projects and Hackathons

Algorithmic Trading App
- Wrote a bot to trade stocks in Robinhood using the "Golden Cross" method
- Implemented the GUI using the PyQt5 library in Python
- Fetched live data from the Robinhood API to trade

React Path Finding Visualization App
- Created a visualizer app using React for some standard path finding algorithms to help myself get comfortable with the topics and to get comfortable with React
- https://optimistic-torvalds-3a6284.netlify.app/

One Shot Learning
- Wrote a housing price predictor using C and the one-shot learning algorithm

HackDSC
- Worked with my friend remotely to develop an iOS app that only shows good news to lift the spirits of people who are going through a hard time during the pandemic
- I worked on the ML model for sentiment analysis using swift and CoreML and helped with UI code
- https://github.com/connorray/GoodNews

Several Classwork Projects in Python, Java, and C

Education and Honors

Rutgers University New Brunswick   New Brunswick, NJ (2018-Present)
- GPA: 3.73
- **Publications**: https://arxiv.org/pdf/2010.09635.pdf
- **Coursework (selected)**: Data Structures (CS112), Graduate Level A.I. (CS520), Graduate Machine Learning (CS536), Systems Programming (CS214), Principles of Programming Languages (CS314), Discrete Math 1 and 2 (CS205 and CS206), Software Methodology (CS213)
- **Unofficial coursework**: Stanford CS229 (Machine Learning), Stanford CS231N (Computer Vision)
- **Nicholas V Novielli Memorial Award**, one of six seniors chosen for an award for excellence in research in computer science at Rutgers.
- **SAS Excellence Academic Scholarship 2020-2021**, among few students at RU for academic excellence