

Raymond Yoo

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

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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)

- Computer Science Honor's Track
- 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.