

# Raymond Yoo

Amazon Software Engineer II — Rutgers University B.S. CS Honors Track

Personal Site + Portfolio: [raymondyoo.com](http://raymondyoo.com)

## About Me

**Technical Skills:** LLMs, LangChain, Spark, SQL, Big Data, ML Ops, AWS SageMaker, ECS, lambda, EMR  
**Web & Mobile:** HTML/CSS/vanilla Javascript, NodeJS, ReactJs, Java Spring  
**Languages:** Python, Java, Javascript, Haskell, C, Swift  
**Interests:** Music, AI, Math, Mental Health, Philosophy, Reading Classics

## Work Experience

### **Amazon**

NYC (Current)

- Software Engineer II
  - Developing big data pipelines for ML recommendation services running spark on EMR.
  - Productionizing ML ETLs that applied scientists on the team create using spark SQL, EMR, Redshift, lambda, CDK, and SageMaker.
  - Working on a 100+ API service with a ReactJS frontend that saves account managers thousands of hours a year in creating managed service advertising campaigns.

### **Amazon**

NYC (Mar 2022 - Dec 2023)

- Software Engineer I
  - full stack web dev: React, Redux, SQL + NoSQL, AWS, Redshift, EMR, data pipelines, Java backend
  - CI/CD using internal tools, git, REST, Agile

### **Amazon**

NYC (Summer 2021)

- Software Engineer Intern

### **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 + TMLR22 (see below for link to published paper).

## Personal Projects and Hackathons

### **Guitar Tab Generator**

- ElectronJS app built that generates guitar tabs based on audio input

### **Pocket Golf Coach AI**

- iOS app built with SwiftUI powered with the GPT Vision API to give feedback on how to improve your golf swing using AI

### **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

**Check my personal website for more projects I've worked on!**

## Education and Honors

### **Rutgers University New Brunswick**

New Brunswick, NJ (2018-Present)

- GPA: 3.73
- **Publications:** <https://arxiv.org/pdf/2010.09635.pdf> + <https://openreview.net/pdf?id=ZPBJPGX3Bz>