

JONATHAN WANG

Software Developer

CONTACT

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EDUCATION

RUTGERS UNIVERSITY - NB

B.S. IN COMPUTER SCIENCE | 2022

GPA: 3.9

Relevant Courses:

- Data Structures
- Computer Architecture
- Principles of Programming Languages
- Programming Languages and Compilers
- Systems Programming
- Operating System Design
- Operating Systems Theory
- Software Methodology
- Databases
- Algorithms
- Internet Technology

SKILLS

Programming Languages:

Java, Python, HTML, CSS, JavaScript, C++, C, C#, R, MatLab, Bash, MySQL

Libraries/APIs:

Bootstrap, React, TensorFlow, Keras, Dash

Tools:

AWS, MongoDB, Google Firebase, Git, Unity

EXPERIENCE

AMAZON FIRE OPERATING SYSTEM ARCHITECTURE TEAM

SOFTWARE ENGINEERING INTERN | SUMMER 2021

- Developed a visualization tool for FireOS dependencies that will save Amazon and FireOS devs time and resources when making changes to the OS architecture or individual modules,
- Explored the **Android Build System**, developed parsing scripts for build modules for gathering data from the FireOS build tree, integrated with **FireOS feature mapping tool** to automate data collection, and developed data graph visualization application with **Dash** and **Vis.js**
- Wrote extensive API documentation and unit tests to allow for further scoping

RUTGERS CENTER OF ALCOHOL AND SUBSTANCE USE STUDIES

RESEARCH ASSISTANT | WINTER 2019 - SPRING 2021

- Designed and compared machine learning models that utilized **XGBoost**, **random decision forests**, and **Tensorflow neural networks** with automated Bayesian hyperparameter optimization to give researchers insight into the contributing factors of substance abuse on brain development from MRI data.
- Developed machine learning interpretation method in R Studio utilizing variable importance plots, local interpretable model-agnostic explanations, and partial dependence plots

RUTGERS WIRELESS INFORMATION NETWORK LABORATORY

RESEARCH INTERN | SUMMER 2018

- Research on wireless signals for mapping indoor environments
- Engineered a real time data collection method that integrated machine learning to process data transferred by wireless signal transmitters in real time, which granted fellow researchers easier access to data needed for analysis

PROJECTS

RUCONNECT - MARKETPLACE APPLICATION

HACKATHON PROJECT | FALL 2020

- Led a team of 4 to build an e-commerce website that allows students within a college community to sell and trade college related items.
- Developed frontend web application with **React** and backend application database with **MongoDB** to store user data, manage listings, and log sales.

HYDROTRACKER - SELF TRACKING WATER BOTTLE

HONORS ENGINEERING FINAL PROJECT | FALL 2019

- Lead designer and head programmer of a team of 8
- Built a dynamic real-time web application in **HTML/CSS/JavaScript** that tracked water levels via an **Arduino UNO** linked to a distance sensor and uploaded data to a real-time **Google Firebase** database