Jonathan Wang

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WORK EXPERIENCE

Amazon.com, Inc.   **Summer 2021 - Summer 2023**

Software Engineering Intern (Advertising Identity Team) | Summer 2023   *NYC*
- Architected the prototype of a new Software as a Service solution for advertising identity graph resolution in AWS, focused on providing a scalable, robust, cost-efficient, and user-friendly data processing platform for private clients.
- Leveraged a comprehensive suite of AWS services, including S3, Lambda, DynamoDB, and Redshift to create a serverless data identification pipeline service, along with ECR, Service Catalog, Docker, CloudFormation, and AWS CDK for packaging and distributing the software to clients.

Software Engineering Intern (FireOS Architecture Team) | Summer 2021 - Summer 2022   *Remote*
- Developed a visualization tool using Dash and Vis.js for mapping the FireOS build tree which streamlined the organization's development workflow through improved efficiency in managing and modifying the OS architecture.
- Researched and prototyped a hardware passthrough implementation in the Android Emulator build to provide a more realistic and complete testing environment for FireOS developers through increased feature support.

Rutgers Center of Alcohol and Substance Use Studies   **Dec 2019 – May 2021**

Research Assistant   *New Brunswick, NJ*
- Designed and benchmarked machine learning models trained on fMRI data to give researchers insight into the contributing factors of substance abuse on brain development.. These models included: XGBoost, random decision forests, neural networks with automated Bayesian hyperparameter optimization, and other popular models.
- Developed machine learning model interpretation methods involving the use of variable importance plots, local interpretable model-agnostic explanations, and partial dependence plots

Rutgers Wireless Information Network Laboratory   **Summer 2018**

Research Intern   *New Brunswick, NJ*
- Developed signal processing algorithms for research on the use of wireless signals for mapping indoor environments

PROJECTS

DribbleDynamics - NBA Player Stat Visualizer   **Spring 2024**

Data Visualization Final Project
- Built a data visualization web app for tracking insights into NBA players' season statistics, career progressions, individual game performances, and playstyle comparisons. Tools: ReactJS, D3.js, Flask, Pandas, MySQL, AWS

RKM - Recipe Sharing Social Media Application   **Spring 2022**

Software Engineering Final Project
- Lead designer and product owner for a team of 5 to build a social media application for professional chefs and home cooks to share, critique, and stock recipes. Tools: React Native, REST API, Flask, MongoDB

Evaluation of YOLOv7 Model for Real-time Object Detection in FPS Games   **Spring 2023**

Computer Vision Research Project

Multimodal Visual-Language Models for Context Based Image Retrieval   **Spring 2023**

Natural Language Processing Research Project

EDUCATION

Rutgers University, New Brunswick   **May, 2024**

B.S. and M.S. in Computer Science. GPA: 3.91 (B.S) / 3.86 (M.S)   *New Brunswick, NJ*

SKILLS

Programming Languages: Python; Java; Javascript; Typescript; HTML; CSS;
Technical Skills: Agile Development; DevOps; Git; Jira; Software Architecture; Cloud Computing; AWS; Docker; Machine Learning; Artificial Intelligence; Tensorflow; Databases; SQL; MongoDB; REST; Django; Flask; React;