

ANTONIO ARANDA

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[LinkedIn](#) · [GitHub](#) · [Website](#)

EDUCATION

Columbia University

B.A. in Computer Science, GPA: 3.90

Sep 2020 – May 2024

New York, NY

- Coursework: Data Structures, Databases, AI, NLP, IOS Development, UI/UX Design, C Systems Programming

EXPERIENCE

Amazon Web Services

Software Development Engineer Intern

Jun 2024 – Aug 2024

New York, NY

- Designed an automation tool in Python to generate paginator model customizations for AWS services in Botocore, reducing manual intervention by SDK teams and eliminating a painpoint for service teams.
- Integrated the automation tool into the AWS CLI and Boto3 CI/CD pipeline by deploying a CodeBuild job using Typescript.
- Implemented unit, integration, and end-to-end tests using Pytest, Moto, and Jest testing frameworks.

Amazon

Software Development Engineer Intern

May 2023 – Aug 2023

Seattle, WA

- Designed a backend microservice for new user authentication technology powered by Amazon Alexa, resulting in faster authentication time for Alexa-enabled devices.
- Deployed RPC APIs using AWS Lambda with Java and Typescript to execute custom operations on DynamoDB tables.
- Conducted extensive unit and integration testing with Mockito and JUnit testing frameworks prior to deployment.

Accessible and Accelerated Robotics Lab

Researcher

Sep 2022 – May 2023

New York, NY

- Leveraged parallel CUDA C++ on NVIDIA GPUs to increase performance of robotic motion planning algorithms by 3-4x over state of the art CPU baselines.
- Prototyped modern trajectory optimization algorithms and constraint handling techniques in Python.
- Investigated and tested the benefits of GPU over CPU architecture to solve computationally expensive algorithms.

Columbia University

Course Assistant

Aug 2022 – Dec 2022

New York, NY

- Assisted Professor Brian Borowski in teaching COMS 3134 Data Structures in Java for over 400 students.

PROJECTS

U.S. Air Quality Twitter Bot - Python, Redis, Docker, X (Twitter) API, Google Cloud Run

x.com/airquality_usa

- Deployed an automated Twitter account that alerts users of air quality changes in America's 75 most populous cities, featuring color-coded maps based on AQI levels.

International Wordle Game - Go, PostgreSQL, Typescript, React, Next.js, Docker, Google Cloud Run

wordle.antonioaranda.dev

- Developed an expanded version of the "Wordle" game, where players can repeatedly guess words in English, Spanish, or French with varying difficulties.

Travel Buds Mobile App - Swift, IOS, Firebase, NoSQL

github.com/antonioaranda0626/travel-buds

- Implemented an IOS application that improves travel experiences by matching travelers into group chats (based on trip destination, dates, and interests), allowing them to communicate and plan social gatherings.

SKILLS

- Languages: Python, Typescript, Go, Java, JavaScript, Swift, C/C++, CSS, HTML, SQL
- Tools: Amazon Web Services, Google Cloud Platform, Postgres, Redis, Docker, React, Flask, Node.js, CUDA