Antonio Aranda

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Education

Columbia University   May 2024
B.A. in Computer Science (GPA: 3.92, Dean's List)   *New York, NY*
- **Coursework:** Data Structures, Algorithms, Databases, AI, NLP, UI/UX Design, Systems Programming in C

Experience

Amazon Web Services   Jun 2024 – Aug 2024
Software Engineer Intern   *New York, NY*
- Automated paginator model customizations in Botocore using Python, reducing manual overhead by 85% for the AWS Boto3/CLI team and eliminating a key pain point for service teams
- Integrated automation into AWS CLI and Boto3 CI/CD pipelines using CodeBuild, Cloud Formation, S3, and TypeScript, streamlining development and release processes for SDK and service teams
- Implemented a shared Python tools library for AWS CLI and Boto3 build systems, reducing code duplication and enhancing maintainability across both projects
- Developed automated unit, integration, and end-to-end test suites using Pytest, Moto, and Jest

Amazon   May 2023 – Aug 2023
Software Engineer Intern   *Seattle, WA*
- Deployed a text phrase generator microservice for new Alexa voice authentication system, processing over 86,000 requests daily and simplifying the user verification experience for customers
- Implemented low-latency RPC APIs for microservice using Java and deployed on AWS Lambda, ensuring scalability for future authentication methods
- Established infrastructure as code using Cloud Formation with TypeScript and designed a scalable DynamoDB data model, optimizing deployment processes and data operations for projected growth
- Developed comprehensive unit and integration tests using Mockito and JUnit

Accessible and Accelerated Robotics Lab   Sep 2022 – May 2023
Researcher   *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   Aug 2022 – Dec 2022
Teaching Assistant   *New York, NY*
- Assisted Professor Brian Borowski in teaching COMS 3134 Data Structures in Java for over 400 students

Projects

Foodie Radar | *Go, Postgres, Google Cloud, React, Next.js, TypeScript, REST*   foodieradar.antonioaranda.dev
- Developed a full-stack web app for personalized restaurant recommendations, using React and Next.js for frontend, Go RESTful APIs for backend, and PostgreSQL for data management

Travel Buds | *SwiftUI, IOS, Firebase, NoSQL*   github.com/arandito/travel-buds
- Implemented an iOS app to match travelers into group chats based on trip details and interests, using SwiftUI for the interface and Firebase for real-time data handling

US Air Quality Alert | *Python, Redis, Docker, Google Cloud Run, Twitter (X) API*   x.com/airquality_usa
- Deployed an automated Twitter account that alerts users of air quality changes in major US cities, using Python for data processing, Redis for caching, and Docker for deployment on Google Cloud Run

International Wordle | *React, Next.js, Typescript, Go, Docker, Google Cloud*   wordle.antonioaranda.dev
- Built an expanded "Wordle" game, where players can repeatedly guess words in English, Spanish, or French with varying difficulties, using React for frontend and Go for backend logic

Technical Skills

Languages: Python, Java, TypeScript, JavaScript, Go, Swift, C/C++, CSS, HTML, SQL
Technologies: AWS, Google Cloud, Docker, PostgreSQL, Redis, React, Next.js, Flask, Node.js, Github Actions, Linux, Unix