David Calderon

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Education

Georgia Institute of Technology (Atlanta, GA)　　　　　　　　　　　August 2022 – December 2024
- Senior, B.S. in Computer Science; Threads: Systems/Architecture and Information Internetworks; GPA: 3.92
- Relevant Coursework: Data Structures and Algorithms (Java), Software Engineering (Java), Advanced Computer Architecture (C/C++), Operating Systems (C), Computer Systems/Networking (C), Machine Learning (Python)

Work Experience

Google: Software Engineering Intern (Sunnyvale, CA)　　　　　　　　　　May - August 2024
- Provided insight into Google's server cooling patterns and statistics for DIMM components, by creating a data processing and analysis pipeline, using Flume Pipelines and C++.
- Created a dashboard with 15 data views for various DIMM metrics, each which displays aggregated information across Google's millions of servers over a 3-year (and gradually increasing) window, using SQL and dashboarding tools.
- Modified data pipelines and dashboard queries based on adapting requirements to ensure final end-user satisfaction.

Amazon: Software Development Engineer Intern (Austin, TX)　　　　　　　May - August 2023
- Doubled average ad targeting affinity values for Amazon Audio services by creating new algorithm in AWS Lambda with Java for categorizing audience insight data, for improved ad targeting services.
- Increased number of insights used for data gathering/dashboard population by 2500% by communicating with internal API team for best usage of API; created Amazon S3 services to cache collected data into CSV files for data analysis.
- Researched and implemented additional features, such as filtering of low-relevance data, building feature flags for insight API requests, and logging of formatted data for more informed development decisions.
- Initiated research to create word vectorization deep learning model for automatically categorizing unseen insights.

Organizations

RoboJackets: RoboNav Team - Software Lead (from April 2023)　　　　　September 2022 - Present
- Led software sub-team of 20 members to develop the software for a fully functional Mars rover, which competed in the international University Rover Challenge in 2024, and is set to compete again in 2025.
- Built various ROS2 C++ packages/nodes for image detection, hardware control, and autonomous navigation.
- Helped train new RoboJackets members in 2023 and 2024 on software curriculum (C++, ROS2, robotics theory).
- Maintaining a project board, CI Pipeline, and documentation relating to training, setup and system functionality.

GT WebDev: Project "DegreeActuallyWorks" – Software Developer　　　September - December 2022
- Worked on software dev team for a more approachable design for Georgia Tech's degree planning service/software.
- Used Figma for visual designs, UI in HTML/CSS, and full-stack logistics with React, MongoDB, Express, NodeJS.

Technical Projects

Personal Site – https://david-calderon.herokuapp.com　　　　　　　　　Summer 2022
- Created a static application to display projects and experience with complex component styling and movement by using Angular, HTML, CSS and JavaScript.

Stock Trading Simulation – https://stock-trading-simulation.herokuapp.com　　Spring 2022
- Developed a 5-page website to allow users to trade artificial stocks with real-time market values, add friends and trade with them, and track gains in investment, using ReactJS, MongoDB, NodeJS, and Express.
- Used an external stock price API and optimized to minimize calls to it by caching data in the MongoDB database.

Super Metroid Game Recreation - youtube.com/watch?v=va7BnZfb_rY　　　Fall 2021
- Recreation of Nintendo's 1994 game "Super Metroid" using C# and the Unity game engine.
- Developed modular scripts for game components and defined their interactions to allow for game functionality.

Skills/Interests

Technical: Java, Python, C/C++, HTML/CSS/JS, NodeJS/ExpressJS, MongoDB, ReactJS, Angular, R, SQL, C#, Unity
Languages: Proficient in English and Spanish (read/write/speak)