

Alvaro Urtaza

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EDUCATION

University of Houston

August 2021 – December 2024

B.S in Computer Science, Minor in Mathematics, GPA: 3.73/4.0

Houston, TX

- Relevant Coursework: Software Design, Data Structures and Algorithms, Data Science and Machine Learning, Operating Systems

EXPERIENCE

University of Houston

January 2022 – Present

Computer Science Teaching Assistant

Houston, TX

- Assisted the professor with teaching 400+ students the fundamentals of programming using **Python**
- Taught weekly labs for over 100 students on database related topics such as normalization and concurrency control
- Led weekly labs, conducted office hours, helped debug **Python** code and provided feedback on **SQL** assignments

Amazon

June 2024 – August 2024

Software Engineer Intern

Austin, TX

- Redesigned a data pipeline for a **Machine Learning** model that forecasts customer demand using **Scala** and **TypeScript**; reduced query runtime speeds by 62% and automated the backfilling of training data in **Python**
- Reduced troubleshooting time by 50% by eliminating reliance on outdated upstream data, ensuring **SQL** queries consistently accessed the latest source data; streamlined the data extraction workflow, resulting in more accurate and reliable forecasting
- Enhanced data accessibility for data scientists by implementing intuitive data partitioning, significantly speeding up the process of deep-diving into specific postal code demand data in **AWS S3**

PROJECTS

chatAir | Amadeus, Express.js, Rapid API, React Native

February 2024

- Developed a mobile application with 3 teammates in the CodeRED Genesis hackathon using **React Native**, winning first-place out of 20+ teams in the PROS company sponsor track
- Integrated APIs such as Amadeus and Rapid API, which improved data retrieval speeds by 40%, leading to faster flight search results for users

E+ | MySQL, Express.js, React, Node.js

October 2022

- Collaborated with a team of 3 developers by developing a full-stack web application using **React** and **Node.js**, streamlining the buying and selling process for the latest gadgets and electronics
- Integrated a **MySQL** Database, optimizing data normalization, which reduced redundancy by 25% and improved overall data quality

Davxgnubot | Node.js, Discord.js, Replit

January 2022

- Implemented an interactive Discord bot using Discord.js and **Node.js** for a community of 40+ members, integrating features like voice-channel music playback and command responses
- Optimized bot functionality using Replit's Cloud, ultimately eliminating server costs and guaranteeing 24/7 accessibility for users

ACTIVITIES

CougarCS

September 2021 – Present

Events Chair and Course Lead

University of Houston

- Coordinated and scheduled over 40 events, incorporating feedback and optimizing successful past concepts, resulting in a gradual 20% increase in member turnout and higher engagement throughout the year
- Collaborated with 30+ tutors by disseminating course updates of information on new labs and assignments, maintaining consistency in guidance offered

TECHNICAL SKILLS

Languages: Python, HTML/CSS/JavaScript, Scala, TypeScript, SQL, C/C++, Lua, Java

Developer Tools: AWS, Git, Postman, Swagger, MongoDB, MySQL, Figma

Frameworks/Technologies: React, Node.js, Express.js, Next.js, React Native, Tailwind CSS