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, Database Systems

EXPERIENCE

Amazon — June 2024 – August 2024
Software Engineer Intern — *Austin, TX*
- Redesigned and implemented a Machine Learning data pipeline using **Scala** and **Apache Spark**
- Automated 3.5+ years of training data backfill with **Python**, reducing backfill processing time by 40%
- Cut debugging time by 60% by eliminating outdated **SQL** data dependencies, improving forecasting accuracy
- Accelerated data scientists' access to deep-dive data by re-partitioning **AWS** datasets for more intuitive use

University of Houston — January 2022 – Present
Computer Science Teaching Assistant — *Houston, TX*
- Reinforced database concepts such as normalization and concurrency control for 250+ students
- Taught weekly labs for over 400 students on fundamental programming concepts with **Python**
- Conducted bi-weekly office hours, helped debug Python code, and provided feedback on **SQL** assignments

PROJECTS

ClassBridge | *React Native, TypeScript, Firebase, Tailwind* — September 2024
- Developed a mobile app using **React Native** and **TypeScript**, promoting financial literacy and education
- Implemented serverless backend with **Firebase**, reducing operational costs by 30% and ensuring scalability
- Introduced English and Spanish multilingual support, increasing user accessibility by 50%

chatAIr | *React Native, Amadeus API, Express.js, RapidAPI* — February 2024
- Built a mobile app with 3 teammates at CodeRED Genesis hackathon using **React Native**
- Secured 1st place among 20+ teams in the PROS-sponsored track by delivering an innovative flight search tool
- Incorporated **Amadeus** and **RapidAPI**, enhancing data retrieval speeds by 40%

E+ | *React, MySQL, Express.js, Node.js* — October 2022
- Collaborated with a team of 3 developers to build a full-stack web application using **React** and **Express.js**
- Created a platform that streamlined the buying and selling process for the latest gadgets and electronics
- Optimized a **MySQL** database and enhanced data normalization, resulting in 25% reduced data redundancy

Davxgnubot | *Node.js, Discord.js, Replit* — January 2022
- Developed an interactive Discord bot using Discord.js and **Node.js** for a community of 40+ members
- Optimized the bot by using Replit Cloud, cutting server costs and ensuring 24/7 availability

ACTIVITIES

CougarCS — September 2021 – Present
Events Chair and Course Lead — *University of Houston*
- Coordinated 40+ events, incorporating member feedback to refine and improve successful concepts
- Partnered with 30+ tutors to share critical updates on labs, assignments, and course material

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