Belinda Alvarado

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EDUCATION

The University of Texas Rio Grande Valley

Master of Science in Computer Science

• GPA: 4.0, Officer of Frontera Devs, Member of SWE

Bachelor of Science in Computer Science

Graduated Magna Cum Laude, President of Frontera Devs, Member of SHPE

EXPERIENCE

University of Texas Rio Grande Valley

Graduate Research Assistant

Aug 2024 - Present

Edinburg, Texas

Graduation: Fall 2026

- Mastered and applied microsatellite analysis, in 1 month by processing 1,449 samples to support research pipeline.
- Constructing GUI software in **Python** for Medfly genetic data analysis to reduce reliance on external tools and decrease human error by 30%.
- Conducted literature reviews on bioinformatics techniques, enhancing team knowledge and promoting efficient practices in haplotype determination and Bayesian clustering, reducing reliance on multiple software tools.

Instructor Aug 2024 - Present

- Implementing a curriculum focused on foundational topics and career exploration in computer science, achieving an average 72% pass rate on quizzes.
- Developed practical demos, including the game Snake in **Python**(Tkinter) and a personal interest website using **HTML** and **CSS**, to enhance their hands-on experience.
- Grading 90+ labs weekly and providing personalized feedback to 47 students.

Society of Hispanic Professional Engineers

Peer-to-peer Tutor

Jan 2023 - June 2024

- Conduct user testing on tutoring platform start-up, Papaya, to identify needed development fixes.
- Provide peer tutoring for Algorithms & Data Structures in C++; increased student retention rate by 18%
- Received 50% of student registration and conducted weekly tutoring sessions.

PROJECTS

Website: Frontera Hacks - NestJS web application

- Built using Next.js with Tailwind CSS and Typescript.
- A web application that allows users to register for and learn about Frontera Hacks (Hackathon at UTRGV).
- URL: fronterahacks.org

Capstone Project: Trimming Trends - Flutter mobile application

- Designed in Figma and built using, Dart (Flutter), style GAN2 model, Google Firebase Database, and Replicate AI.
- An application that allows the user to replace their hair with a different hairstyle.

LEADERSHIP EXPERIENCE

Frontera Devs

President/Officer

May 2022 - Present

- Led recruiting/marketing efforts, managed workshops and grew organization from 300 to 700+ members.
- Co-Pioneered Frontera Hacks 2023, a MLH Official hackathon for 150+ attendees city-wide.
- Assisted with front-end development of Frontera Hacks 2024 website in Next.js, creating the landing/home page.
- Led Intro to Firebase workshop, guiding attendees on incorporating Firebase Authentication into their projects

SKILLS

- Languages: Python, C++, Typescript, JavaScript, HTML, CSS, Dart, MySQL
- Dev Tools/Frameworks: GitHub, Next.Js, React.Js, Tailwind CSS, Flutter, Google Firebase, JIRA, Figma, Agile
- Communication: Fluent in English & Spanish.