FRANCISCO NAVA

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Computer Science major looking to apply theoretical knowledge and contribute to dynamic and innovative software engineering and IT roles.

EDUCATION

The University of Texas Rio Grande Valley Expected Graduation: Fall 2023
Bachelor of Science in Computer Science GPA: 3.56

South Texas College August 2016 – June 2020
Associates Degree in Interdisciplinary Studies GPA: 4.0

WORK EXPERIENCE

UT Health (Dallas Country Health and Human Services) Dallas, Texas
   Data Analyst Intern September 2023 – Present
- Utilizing various software to efficiently gather and preprocess community data, ensuring accuracy and reliability for downstream analytics.
- Organizing raw community data into impactful visualizations, aiding UT Health in data-driven decision-making as well as its stakeholders.
- Streamlining the data processing pipeline, facilitating efficient analytics, and ensuring the data is sufficient and relevant for certain tasks.

Multiple Autonomous Robot Systems (Swarm Robotics) - UTRGV Edinburg, Texas
   Research Assistant April 2023 – Present
- Actively engaged in collaborative research that focuses on the practical application of Python programming in autonomous robot behavior.
- Implementing simulations in virtual environments to anticipate robotic behaviors, with the aim of enhancing predictability in the real world.
- Developed advanced, path planning strategies, and obstacle avoidance techniques, resulting in a significant improvement in efficiency

Edinburg Consolidated School District Edinburg, Texas
   Web Master Intern September 2022 – Present
- Managing over 30 school websites using a content management system and serving as a go-to resource for technology troubleshooting
- Utilizing Structured Query Language (SQL) to effectively navigate the district website's database and extract relevant information.
- Collaborating with cross-functional teams to design and implement innovative solutions for improved efficiency and user experience.

PROJECTS

Asteroids Game
- Creating a game at the command prompt that implements C++ and math concepts that allow the user to pilot a ship and shoot at asteroids
- The game is created using OOP, basic I/O, structures, memory management, rendering mechanisms and more to create a basic game.

EasyPeasyPal App
- Creating an app that allows users to harness the full potential of technology for everyday requirements regardless of their tech experience.
- The app uses the Flutter framework, software methodologies, UI/UX designs, CI Testing, firebase database and more to create the app.

E-puck Robot
- Developed a virtual autonomous scavenging e-puck robot using Python and Webots that uses bug0-algorithm to reach a target destination.
- The controller employs state management, robot kinematics, algebra, obstacle avoidance and more to help the robot navigate the world.

Access Request Form
- Developing a web application that allows employees to request access permissions to the district's internal management applications.
- The web app is built using C#, .NET Framework, REST API's, SQL queries and data encryption to ensure user information is secure.

COMPETITIONS

Nissan Design Challenge
- Participated in a challenge where we were tasked on finding how to improve sustainability in current electric vehicles and be cost effective.
- My team proposed switching the separators located within lithium-ion batteries from Polyolefin to phase-changing materials (paraffin wax)

IEEE Coding Hackathon
- Completed a 24-hour challenge that involved solving practical problems in computer science topics such as algorithms and data structures.
- Using C++ and Python, my team and I placed 3rd in our university, 12th in Region 5, and in the top 40% internationally.

Frontera Devs Hackathon
- Competed in a 24-hour competition that required a project that would benefit our community and takes into account our geography.
- My team created a website with a database, and API's that targeted Spanish speaking families seeking inexpensive medical services.

SKILLS

Languages: C++, HTML, CSS, Python, JavaScript, SQL, Ruby, Dart

Software: Linux, MATLAB, Jupyter Notebook, CMS, ReactJS, Node.js, GitHub, Git, SQLite, VS Code, Webots, Flutter, Xcode, Power Bi