Rodrigo Dávila Castillo

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Education

The University of Texas at San Antonio | San Antonio, TX

Bachelor of Science in Computer Science; undergraduate GIS certificate

Graduated in December 2024 | GPA: 3.95

Distinguished on the President's List for 3 semesters, Dean's List for 3 semesters.

Selected coursework

- Software Engineering
- Web Development
- Secure Software Development & Analysis

Skills

- Spoken languages: English, Spanish fluency
- Programming languages: Java, Python, C, JavaScript/TypeScript, PHP, SQL, Bash, HTML, CSS, R
- Tools and technologies:
 - Development: Git, Azure DevOps, Jupyter Notebook.
 Document editors: Microsoft Office suite, Google Docker, IntelliJ, VS Code, Android Studio
 - Libraries and frameworks: Next.js, React, Bootstrap, Design software: Adobe Photoshop, Illustrator, Tailwind, Django, ArcPy, ArcGIS SDK for JS
 - GIS/RS software: ArcGIS Pro, ArcGIS Online, ArcMap, Databases: MySQL, MariaDB ENVI, Google Earth Engine

- Programming & Statistics for GIS
- Data Science
- Artificial Intelligence
 - Workspace, LaTeX
 - InDesign, Premiere Pro

 - OS environments: Windows, Linux

Experience

Work

Conrad Blucher Institute | Software development intern

May 2024 — August 2024 | Corpus Christi, TX

- Contributed to the development of the <u>Nurdle Patrol</u> citizen science project by developing frontend components for its upcoming Next.js-based website; used modern technologies (React, Tailwind, Flowbite, ArcGIS Maps SDK for JavaScript) to deliver a user-friendly interface for citizens and researchers alike.
- Engaged in an Agile development environment, by developing in 2-week sprint periods, participating in Scrum and stand-up meetings, and engaging in communication with the designer, product owner, and scrum master to thoughtfully develop components for the site.
- Advised in the development of a standard operating procedure for Nurdle Count, an AI-driven computer vision approach to counting microplastics, to improve the efficiency of citizen scientists' surveying efforts.

Selected projects

Rate My Advisor | December 2024

 Developed components for a Next.js-based web platform partly modeled after <u>Rate My Professor</u> and maintained by <u>ACM UTSA</u>, using React and Tailwind CSS. Components were designed in an effort to improve students' academic experiences by providing an interface to view and write advisor feedback, while also accommodating for the platform's future expansion into course and instructor reviews.

ArcApple!! | September 2024

• Used the ArcPy Python library in a creative showcase, displaying the animated music video "Bad Apple!!" on a map of U.S. Census block groups as a personal demonstration of GIS programming ability.

Community involvement

Student organization officer | Prism at UTSA

February 2023 — December 2024 | San Antonio, TX

- Developed, organized, and led weekly social events to serve 300+ members of the UTSA LGBTQ+ community, enhancing student life on campus while developing critical leadership abilities.
- Prepared internal resources for effective event planning, leadership communications, and community policies as a 501(c)(3) organization, setting it up to continue thriving into the future.