Adrian Salinas

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Experience

University of Texas Rio Grande Valley *Edinburg, TX*
Undergraduate Researcher May 2023 – Jan 2025

- Collaborated with a small team to write and design algorithms/proofs for five published papers. Led the team for one of the papers. Earned an REU grant and a *Best Student Paper Award*.
- Presented our technical work to people outside the field of research at six university events. Mentored three undergraduate students who had no prior experience in research.

Projects

Canto Avis (Audio Player) Canto-Avis

- Created a lightweight audio player for bird sounds. Users can make custom API requests to the Xeno-Canto database for more specific sounds. 100 backup recordings are saved in case the API requests fail.
- *Tools:* JavaScript, HTML/CSS, jQuery, Node.js

YouTok (Full-Stack Web App) YouTok

- Built a full-stack web app where users can view, save, and write notes on unusual YouTube videos that have little to no views. TikTok-inspired front end.
- *Tools:* TypeScript, React, JSX, Next.js, Tailwind, Sanity, Vercel, Node.js

Indie Web Crawler Indie-Web-Crawler

- Built a web crawler designed to traverse the connections between the Indie Web. Users have the option to receive additional data, such as the number of times a URL was linked to on a domain and the pages the crawler didn't visit.
- *Tools:* JavaScript, Node.js

Keys of Life (Generative Music) Keys-of-Life

- Developed a simulator of Conway's Game of Life that generates music in real time based on the board's configuration. Includes 12 features for users to customize the board and how music is played.
- *Tools:* Python, Tkinter, Pygame

24-hr Research Hackathons utrgv.hackresearch.com

- Collaborated with, at most, three students to solve theoretical problems under a 24 hour time constraint.
- Designed deterministic Chemical Reaction Network system that can behave randomly. (2023)
- Bounded the number of tiles needed to make any rectangular 1/0 pattern in Pattern Assembly Tile Systems. (2023)
- Volunteered to write and present our lab's research questions at the event, including an original problem I created based on Ramsey Theory. (2024)

Education

University of Texas Rio Grande Valley Fall 2021 – Fall 2024
Bachelor's of Science in Computer Science **GPA:** 3.96

Technologies

Primary Languages: JavaScript, HTML/CSS, Python, Ruby, SQL, C++

Frameworks: React, LaTeX, Ruby on Rails, Microsoft Office Suite

Tools: Git/GitHub, Node.js, SQLite, Jira, Agile/Scrum Methodology