Jofred Gonzalez

https://github.com/JofredG | https://www.linkedin.com/in/jofredg

Education

University of Texas Rio Grande Valley Expected graduation: May 2026
B.S. in Computer Science Candidate, Minor in Cybersecurity *GPA: 3.6/4.0*

Skills

Coursework: Data Structures & Algorithms, Object Oriented Programming, SQL Databases, Data Mining, SWE 1, Web Development, Computer Networks, Cyber Sys Reverse Engineering, AI-Powered Applications, Intro to Deep Learning, Automata
Languages: Python, C++, SQL, JavaScript, Rust, HTML & CSS
Frameworks & Libraries: Scapy (TCP, UDP), Requests, React, Django, Tauri, Scikit-Learn, TensorFlow, Pytorch
Collaboration Tools: Agile, Git, GitHub, Slack, Discord, Coda, Notion, MS Teams, WindowsOS, Unix/Linux, Docker
Languages: Spanish, English, Conversational French
Certifications: NVIDIA Fundamentals of Deep Learning - Issued May 2024 | AT&T 2024 Technology Academy - Issued Jun 2024 | CodePath Technical Interview Prep 101 (Intro) & 102 (Intermediate) - Issued December 2024, May 2025

Work Experience

Python Package Ecosystem Research | Python, MongoDB, PyGithub, Docker May 2025 – Present
Carnegie Mellon University - STRUDEL Lab *Pittsburgh, PA*

- Developed infrastructure to curate data on 1,470+ PyPI projects, for large-scale analysis of project takeovers and transfers.
- Automated and validated data classification workflows using LLMs, reducing manual processing time by 99.7%.
- Analyzed socio-technical trends in the PyPI ecosystem using empirical methods under Dr. Bogdan Vasilescu.

Discrete Math & Software Engineering Teaching Assistant (CSCI 3310, 3340) September 2024 – May 2025
University of Texas Rio Grande Valley *Edinburg, TX*

- Clarified counter intuitive combinatoric math concepts by hosting two weekly office hours for two sections of 45 students.
- Fostered essential critical thinking and analytical skills by mentoring >10 students in problem-solving techniques(UMPIRE).
- Supporting students learning the roles Git and GitHub play along with suggesting workflows for team collaboration.
- Assisting students with understanding Python and web development using the Django Framework.
- Enabled students to quickly learn from their mistakes and improve future work by swiftly grading assignments and quizzes.

Multiple Sclerosis ML Research | SK-Learn, TensorFlow June - July 2023
Texas State University - NSF REU https://github.com/JofredG/TXST_REU_MS_and_AI

- Accelerated development of a machine learning model to assess the severity of disease for people with Multiple Sclerosis.
- Gathered data containing 213 features and ∼12000 rows per set with 8 Inertial Mass Unit motion sensors in line with IRB.
- Decreased the data set size by ∼15% using the Pandas library in a Python script that also processed data for model input.
- Trained a non-binary, 10-class classification model prototype using Python, TensorFlow, and Jupyter Notebook.
- Documented progress and obstacles by journal and contributing to weekly discussions with Dr. Valles and Dr. Farrell.

Projects

Telemetry GUI Project Manager | Javascript, React, Rust, Tauri May 2023 – May 2025
Rocket Launchers UTRGV, Student Research and Development *https://github.com/JofredG/tas-gui-v1-1-0*

- Specified and implemented a user interface to display telemetry acquisition data from our proprietary flight computer.
- Directed a team of 2 developers, with beginner and competent skill levels, by adapting Agile methodologies to our use case.
- Communicated with the hardware and propulsion sub-teams to brainstorm, draft, and implement Graphical UI features.

Leadership and Organizations

Frontera Devs Team Lead → President September 2023 – Present
UTRGV College of Engineering and Computer Science (CECS) *https://www.fronterahacks.org*

- Introduced career and job application strategies to audiences of varying experience through non-technical presentations.
- Maximized audience attention for technical and non-technical presentations through experimental presenting techniques.
- Planned and executed logistical food, workshops, and de-stress activities for a 24hr Hackathon hosting 257 hackers.

Engineering Student Advisory Council Chair (ESAC) May 2023 – August 2024
UTRGV College of Engineering and Computer Science (CECS) *Edinburg, Texas*

- Facilitated communication and collaboration between student organizations and the CECS Dean's Office by establishing myself as a point of contact for 5 student organizations under the Computer Science Department.
- Boosted college spirit and engaged ∼200 students in the college by conducting two college wide socials and one competitive sports competition with 8 student organization teams on the sport bracket.
- Documented procedures for annual events organized by the council to ensure future coordination with the CECS Dean's staff.