JULIAN CANALES

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EDUCATION

The University of Texas at Austin—*M.S. Artificial Intelligence (online)*   Aug 2025 – May 2027
The University of Texas at Austin—*Bachelor of Science, Mathematics & Computer Science*   May 2025 | GPA: 3.65
- **Awards**: QuestBridge Scholar, HSF Scholar, University Honors
- **Activities**: Directed Reading Program, Texas Blockchain, Earthquake Research, CS Internal Transfer Program

EXPERIENCE

Linguzone, remote — *Founding ML/Software Engineer (part-time)*   June 2025 – Present
- Scoped evidence-based MVP with psycholinguistics PhD lead; set up repo & process (GitHub, sprint cadence).
- Interviewed technical candidates and supported hiring of a PhD software engineering lead; defining first ML/LLM prototypes (spaced repetition, tutor/feedback). *Build-stage begins September*.

IBM, Coppell, TX — *Data Science Intern*   May – Aug 2023
- Built and deployed a **Flask-based visual POC** integrating **Watson Assistant with Db2**; showcased AI chatbot capabilities and helped secure a **$20k client deal**.
- Created a **1.5k-LOC Dash web app** backed by WatsonX, Discovery, and a custom evaluation API; intended for adoption by South-Central Sales for LLM performance comparisons.
- Owned **backend API integration** for a **React** + Flask onboarding MVP deployed via IBM Cloud and OpenShift; collaborated in a 3-person team to ensure full-stack reliability.

UT Austin, Austin, TX — *Undergraduate Researcher, Earthquake Modeling*   Jan – May 2024
- Re-engineered a legacy Mathematica SDOF solver into a **multithreaded Python pipeline**.
- Ingested **29k+ NGA-West2 records**; ran parameter sweeps on a 64-vCPU GCP n2-highmem-64 instance; reduced total runtime from **≈3 years to ≈2 weeks (~1000×)**.
- Produced interactive Plotly dashboards and a Spring 2024 seminar deck to communicate findings to faculty.

OnRamps, Austin, TX — *Calculus Grader*   Aug 2023 – May 2024
- Graded ~1.2k statewide assignments; streamlined feedback workflow to return results within two weeks.

Additional experience: UT Austin STEM Stockroom Assistant (managed $250k+ inventory, 2022–2023); YMCA Fitness Floor Associate (guest support, 2021); Greenhouse Equity Partners (analyst intern, 2021).

SELECTED PROJECTS

Fantasy Football Draft Optimization via Deep RL (GitHub)   May – Aug 2024
- Custom **Gymnasium/PyTorch** Maskable-PPO pipeline on 4 NFL seasons; **+26%** draft-win vs heuristics, proven across **1.2k+ evaluation episodes** while uncovering key time-series generalization gaps

Robust Autonomous Driving Planner (GitHub)   April – May 2025
- Adaptive **DQN + CEM** with **k-NN** error tracker; **0% collisions** and **+17% safety** over deterministic baselines in 20 roundabout-v0 simulations

CUDA-Accelerated K-Means/K-Means++ (GitHub)   March 2025
- Engineered high-performance ML clustering pipeline with 4 **GPU-accelerated implementations** achieving **14x speedup on 1Mx32D datasets**, utilizing **shared memory optimization**

SKILLS

Programming: Python, SQL, C/C++, CUDA C, Bash
Familiar: Java, Go, Rust, R
ML & Data: PyTorch; scikit-learn; pandas, NumPy, SciPy; Matplotlib/Plotly; Gymnasium; Stable-Baselines3; DuckDB; LLM APIs (OpenAI – basic); IBM watsonx, Assistant, & Discovery (internship exposure); GPU profiling (nvprof)
Web & Apps: Flask; FastAPI; REST APIs; basic React
Systems & Infra: AWS (EC2/S3); GCP Compute Engine; Docker; Git; basic Kubernetes/OpenShift; OpenMP/MPI
Soft skills: Communication, teamwork, client interaction, presentations, conflict resolution, adaptability
Languages: English (native), Spanish (native)