MATIAS BARCELO

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TECHNICAL SKILLS

Languages: Python, R, Java, C++, SQL, JavaScript, HTML

Frameworks & Tools: FastAPI, Next.js, React, Electron, PostgreSQL, WebSockets, REST APIs, Git, Linux, R-Studio, Jupyter

Data, ML & AI: Machine learning, data mining, statistical analysis, data visualization; Google Gemini/ADK, LLM agent design

Spoken: Bilingual — English (native), Spanish (fluent)

PROJECTS

Handshake to Signal **June – July 2026**

Full-stack campaign CRM — Google Cloud Platform, FastAPI, PostgreSQL, Next.js, Gemini/ADK Collaborative project

- Built a full-stack campaign CRM on Google Cloud Platform (FastAPI/PostgreSQL, Next.js, Clerk auth) with Gemini-powered agents for AI volunteer vetting, voter lookup, and image-based contact import
- Collaborated with the campaign manager of a winning 2026 congressional campaign, building the tool for real campaign outreach
- Named “Most Investable” at the 2026 AI Builder Sprint Demo Day (AI Women Leaders) — recognized by a panel of investors and operators for the strongest investment potential in the cohort

ChatPlays **2021 · Rebuilt 2026**

Twitch-chat-controlled emulator platform — Python, FastAPI, WebSockets, Electron/React

- DFW CodeLaunch Startup Competition — the only student team in the grand final; personally delivered the pitch. Advanced through multiple curation rounds and earned a hackathon sponsorship from Allata. Covered by Dallas Innovates.
- Built a desktop app letting Twitch chat vote to control a Game Boy Advance emulator in real time, with a Python FastAPI/WebSocket backend and an Electron + React frontend
- Implemented virtual gamepad input injection (ViGEm), cross-platform emulator detection (Windows API, macOS AppleScript), and an anarchy/democracy voting-timer system for aggregating chat commands

EXPERIENCE

Math Teacher **August 2025 – May 2026**

Royse City ISD Royse City, TX

- Performed data analysis in R-Studio and Eduphoria/Aware to track student performance metrics and identify trends
- Integrated Gradescope grading system into classroom workflow, improving assessment efficiency
- Communicated complex technical concepts to diverse audiences; collaborated with cross-functional teams of educators and administrators

Calculus & Computer Science Tutor **September – December 2024**

Southern Methodist University — Altshuler Learning Enhancement Center Dallas, TX

- Tutored Calculus I, Business Calculus, introductory Computer Science, and Spanish; collaborated with PhD-level staff in a professional academic environment

Undergraduate Researcher — NSF REU **June – August 2023**

University of Texas at Dallas — Evolutionary Information Laboratory (Dr. Faruck Morcos) Dallas, TX

- Selected for the NSF Research Experience for Undergraduates (competitive national program)
- Ran molecular dynamics simulations on UT Dallas’s Ganymede 2 high-performance computing cluster via SLURM; managed large-scale data processing
- Developed Python scripts to automate repetitive research tasks; supported PhD research on protein–protein interactions using AMBER and Chimera

EDUCATION

Southern Methodist University **Dallas, TX**

Lyle School of Engineering — B.A. Computer Science, Minor in Data Science December 2024

GPA: 3.63

Relevant Coursework: Machine Learning in Python (CS 5324)*, Software Architecture & Design (CS 5319)*, Data Structures (CS 2341). *Graduate-level courses completed during undergraduate studies