

JOSHUA RAMIREZ

Cornell Engineering '30 · Computer Systems / ECE

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EDUCATION

Cornell University — College of Engineering	Ithaca, NY
<i>B.S. Engineering, Intended Electrical & Computer Engineering</i>	<i>Expected May 2030</i>
Cornell Global Start — Universidad de Cantabria	Santander, Spain
<i>First-semester international study program</i>	<i>Fall 2026</i>

SELECTED TECHNICAL PROJECTS

Voice-by-Induction — Hardware / Audio Experiment Spring 2026

- Built an inductive audio prototype with LM386 and TPA3118 amplifier boards, a hand-wound magnet-wire coil, and a neodymium magnet; the TPA3118 was noticeably louder.
- Tested the coil in a quiet room and a school hallway; the proposed earpiece enclosure was never built.

Something Running Somewhere — Linux / Infrastructure 2026

- Continue using an Ubuntu environment on Oracle Cloud ARM A1 as a backend for remote workloads; it runs on the \$0 free tier and has been reliable in my use.
- Configured SSH keys and Tailscale for remote access, using tmux to keep sessions and long-running processes available after disconnects.

Schoology MCP Experiment — AI Tooling Fall 2025

- Built a background synchronizer, SQLite mirror, and MCP server that exposed selected assignment titles, due dates, and related links through ChatGPT.
- Implemented daily and weekly briefing queries plus an Apps SDK interface, keeping user-facing requests independent of live Schoology crawls.

Independent Schools Admission Association of Dallas — Website Rebuild Summer 2023

- Rebuilt the public site for a 16-school admissions association with responsive pages, school filtering, interactive mapping, events, FAQ, and contact workflows.
- Managed requirements with admissions directors through staging review, production deployment, and DNS cutover for the completed paid engagement.

EXPERIENCE

DLR Group Dallas, TX | Jun 2025

Engineering Intern

- Worked alongside multidisciplinary engineering and design teams on active building projects and participated in Revit coordination and clash-review workflows.

University of Texas at Dallas Dallas, TX | Summer 2024

Machine Learning Summer Program

- Built a CNN face-swap detector and browser demo using FFHQ portraits and generated InsightFace swaps; presented the class project with my group.

TECHNICAL SKILLS

Programming: Java; Python (working knowledge)

Systems & Tools: Linux/Unix shell, Git/GitHub, SSH, remote servers, REST APIs, SQLite, L^AT_EX

AI Systems: LLM APIs, MCP, tool/function calling

Other: Blender, Unreal Engine, 3D visualization

Languages: English (native), Spanish (fluent)