

Braden Feuer

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Education

The University of Texas at Austin

B.S. Electrical and Computer Engineering | Business Foundations Minor

GPA: 3.93/4.0

Work Experience

Blue Sky Infrastructure - *AI & Operations Intern* | Houston, TX

May 2026 - July 2026

- Conducted technical research on Class I injection wells, PFAS regulations, and landfill leachate management to evaluate carbon capture opportunities
- Leveraged Anthropic to develop Python scripts that automated QGIS workflows and analysis of government datasets

NASA - *Intern* | Johnson Space Center, TX

June 2024 - August 2024

- Collaborated with 14 interns in NASA's Humanworks Lab (ER3) to design countermeasure devices combating muscle and bone loss for ISS astronauts
- Drafted and simulated PODIUM exercise device attachments in CREO CAD, enabling astronauts to perform strength exercises in zero gravity

Projects

Smart LED Matrix Display - *ESP32-S3* | C++

June 2026 - August 2026

- Developed a Wi-Fi-enabled 128×32 RGB LED matrix dashboard on an ESP32-S3 displaying real-time weather, Spotify playback, calendar events, and stocks
- Integrated multiple web APIs with custom firmware to drive dynamic graphics and animations
- Designed a custom ESP32-S3 PCB for a compact display with integrated power delivery and HUB75 interfacing

Embedded Handheld Video Game - *MSPM0+ Microcontroller* | C

January 2026 - April 2026

- Recreated a fully playable arcade game in C with sprites, collision detection, and sound effects
- Interfaced an LCD, ADC-controlled potentiometer, and DAC audio on a custom MSPM0+ PCB
- Implemented interrupt-driven firmware using finite state machines and multiple ISRs for responsive gameplay

Leadership Experience & Activities

Varsity Water Polo - *Captain*

August 2024 - November 2024

- Led daily practices, improved teammates' shooting form and game strategies, and fostered a positive team culture.

Honors & Awards

Valedictorian, Memorial Senior High School

May 2025

USA Water Polo Academic All-American

May 2025

Phi Beta Kappa Alumni Association Scholarship

February 2025

Additional Information

- **Programming:** C, C++, Java
- **Hardware:** PCB design, KiCad, Creo (CAD), soldering, microcontrollers (ESP32-S3, MSPM0+)
- **Coursework:** Embedded Systems, Software Implementation, Digital Logic Design, Differential Equations
- **Languages:** Spanish (Intermediate Proficiency)
- **Interests:** Baseball Statistics, Competitive Water Polo, Settlers of Catan, Golden Retriever Enthusiast