

# Gabriel Bendix

## Education

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**The Herbert Wertheim College of Engineering, University of Florida** Gainesville, Florida  
Bachelor of Science in Computer Engineering May 2027  
Relevant Coursework: Microprocessors Applications, Operating Systems, Digital Logic and Design, Circuits

## Relevant Experience

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**University of Florida Computer Engineering Department** Gainesville, Florida  
*FPGA Hardware Pipeline Research Co-Author* January 2025 – Present

- Co-authored a submission proposing an edge native pixel to analysis pipeline for **UAV** swarms: an **FPGA** front end does multi object tracking, emitting a per object state that a quantized-on device **LLM** ingests to infer intent.
- Developed a pipeline that eliminates cloud dependence, slash uplink needs and keep latency deterministic.
- Achieved **66.7 ms latency** (~15 FPS, 320×240), 6-10 W power, **near-zero uplink**: using under 2% **FPGA** logic.

**CANAC data processing** São Paulo, Brazil  
*Software Development Intern* May 2025 – July 2025

- Utilized the production data from Brazilian cane mills to develop online panels, providing harvesters with real time analytics and alerts when making logistical decisions, increasing total cane production and data accuracy by 20%.
- Leveraged **SQL with Google Big Query** to analyze 500,000 data points in a web-based climate visualization panel.
- Built interactive React dashboards rendering filterable climate heatmaps, vector tile layers for plots, and station pins.

**FEI University Robotics** São Bernardo, Brazil  
*Electrical Team Member* May 2025 – July 2025

- Deployed a **GPU** accelerated computer vision pipeline with ZED 2i depth sensing camera for autonomous robots.
- Used **CUDA** and ROS on the Ubuntu Linux to run autonomous navigation algorithms for a robotics competition.

**LEAD Engineering Contractors** Miami, Florida  
*Data Analysis Intern* May 2021 – August 2021

- Automated the analysis of 800+ blueprints to produce estimates of materials needed for construction projects.
- Navigated Spanish dominant operations, synthesizing stakeholder feedback into execution plans to meet deadlines.

## Leadership Development

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**UF Engineering Innovation Institute** Gainesville, Florida  
*Program Leader* May 2024 – October 2024

- Led IGNITE, the only EII backed program promoting entrepreneurship at UF with panels, VCs, and workshops.
- Executed a campus outreach overhaul that increased awareness by 80%, building cross organization partnerships (e.g. SHPE, UF Blackstone Launchpad), establishing flagship events, and launching targeted media campaigns.

**Medi Connect Digital** Berlin, Germany  
*Team CEO* July 2024 – August 2024

- Elected to lead Medi Connect Digital, a venture built to help tourists navigate foreign healthcare systems.
- Awarded first place out of six teams based on projected market cap, by a panel of two Berlin incubator leaders.
- Built a web prototype integrating a ChatGPT wrapper with a Maps API for medication guidance and navigation.

**NASA Technology Transfer Program** Gainesville, Florida  
*Fire Archy Team Leader* November 2024

- Conceived and prototyped a three-pronged wildfire awareness system to safeguard 3.3M Americans annually.
- Lead the team awarded **1st place** and **\$6,000** in prizes by NASA/UF judges for real world applicability and breadth.

## Skills & Interests

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**Proficient Languages:** Portuguese, English, Spanish, Assembly, C++, SQL, assembly, VHDL, Verilog, Python  
**Programs:** NASA T2U (Comp. Winner), UF Blackstone Launchpad (Comp. Winner), MLP (Latinx leadership)