

# Jaiden Medina

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## EDUCATION

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**Indiana University, Luddy School of Informatics, Computing, & Engineering**, Bloomington, IN May 2027

*Bachelor of Science in Computer Engineering*

*Minors: Intelligent Systems Engineering, Mathematics*

- Jackson Intelligent Systems Scholarship, Luddy School of Informatics, Computing, & Engineering
- GROUPS Scholar
- Accelerated Master's Program Student in Intelligent Systems Engineering

## EXPERIENCE

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**1st Source Bank**, South Bend, IN May 2025-Aug 2025

*Information Technology Intern*

- Queried the bank's data core using SQL, transformed the data, and developed a Power BI report analyzing rapid account closures; presented findings to top bank leadership to inform retention strategies.
- Assisted in enterprise system migrations, contributing to the successful rewrite and transition of ~10 reports, while gaining hands-on experience with SQL, IBM Cognos, and Hyperion EPM in large scale IT operations.

**Lippert**, Elkhart, IN

*LEAN / Manufacturing Engineer Intern*

May 2024-Aug 2024

- Led the design, fabrication, installation, and testing of the first-of-its-kind Upper Deck chassis in the RV industry, achieving a ~34% increase in production efficiency and significantly improving safety; pitched the design as a formal product launch to company leadership.
- Programmed a custom calculator using Python, Excel, AutoCAD, and DraftSight, integrated with the production material database, to standardize engineering calculations and streamline workflows across modified rigs.

## ACADEMIC PROJECTS

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- **Radiation-Induced Fault Characterization in Sequential Logic:** Simulated a 4-bit CMOS master-slave D flip-flop shift register in LTspice; modeled heavy-ion effects via transient current injection to analyze SEU/SET behavior, node sensitivity, and clock-dependent vulnerabilities in digital hardware.
- **Embedded Neural Network Optimization:** Optimized a Raspberry Pi-based neural network for human activity recognition, improving accuracy from ~0.80 to ~0.95 and balancing inference speed, model size, and performance using TensorFlow Lite for edge deployment.
- **Gas Adsorption Physics Research:** Conducted experimental research on helium confinement in MCM-41 mesoporous silica under IU's GROUPS Summer STEM initiative, synthesizing materials, analyzing structural properties, and co-authoring a formal paper contributing to low-dimensional quantum physics.

## TECHNICAL

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- Programming/Development: Python, C, C++, Java, Verilog, SQL, Assembly, RISC-V, scikit-learn, TensorFlow, Keras, TensorFlow Lite, REST APIs, Swagger/OpenAPI, DAX, YAML, Program Optimization
- Tools/Environments: Microsoft Power BI, IBM Cognos, Hyperion EPM, GitHub, Jetsream2 (Linux VMs), AutoCAD, DraftSight, Autodesk Fusion 360, Microsoft 365 (Excel, Access, SharePoint), Adobe Suite, Arduino

## LEADERSHIP

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**Society of Hispanic Professional Engineers IUB Chapter**, Bloomington, IN

*Founder & President*

Aug 2024-Present

- Lead strategy, operations, and executive board for campus chapter focused on underrepresented students in STEM
- Built partnerships with 20+ organizations; led events engaging 500+ students (e.g., Minorities in STEM Night)
- Awarded *Collaboration Powerhouse Award* (Indiana University Student Government) for cross-campus impact

