

Saanvi Kodiganti

saanvikodiganti22@gmail.com | linkedin.com/in/skodiganti/ | 561-427-9659 | Palm Beach Gardens, FL

Education

BS in Biomedical Engineering | Minor in Computer and Information Science and Engineering May 2026

University of Florida, Herbert Wertheim College of Engineering | Gainesville, FL

Cumulative GPA: 3.8/4.0

- Relevant Courses: Data Structures & Algorithms, Operating Systems, BME Instrumentation, Signals, AI in Biology
- Awards: UF Hall of Fame Inductee, Gator Engineering Professional Excellence, National Merit Scholar

Work Experience

Hardware Integration Intern, Keno Health AI | Remote July 2025 – Present

- Evaluate display module vendors and integrate subsystems for an early-stage stethoscope for heart murmur detection
- Develop a GUI with 3 states and perform functional testing by implementing early interface mockups on **TouchGFX**

Undergraduate Research Assistant, Musculoskeletal Biomechanics Lab | Gainesville, FL Jan 2024 – Present

- Developing a **thesis applying machine learning** to predict NBA player shooting efficiency from preliminary performance
- Adapted a **convolutional neural network** to accurately annotate 50 markers on 300+ hand images, improving data analysis efficiency while refining Python programming and troubleshooting skills
- Refined hand images and corresponding data points in CSV files using **Pandas, NumPy, and Matplotlib**
- **Leveraged Vicon** to reconstruct 3D motion capture data from 35 collections, enhancing upper-limb biomechanics knowledge
- Assisted with 6-hour 3D motion capture data collection sessions by setting up the environment, operating the software, and providing emotional support to patients in stressful situations

BME Instrumentation Lab Teaching Assistant, UF BME Department | Gainesville, FL Jan 2025 - Present

- Lead 22 students in **troubleshooting circuits** involving op-amps, timers, function generators, and oscilloscopes
- Mentor students in progressively developing expertise to construct a **functional cardiac pacemaker** by the end of the semester, ensuring a strong understanding of biomedical instrumentation concepts
- Design, assemble, and solder PCBs to **produce 18 pulse oximeters** for laboratory use

Systems Engineering Intern, Texas Instruments | Dallas, TX May 2025 – Aug 2025

- **Designed a PCB in Altium** to enable high-speed 10BASE-T1S Ethernet communication between a MCU and edge devices, leveraging advanced design techniques to optimize signal integrity and minimize latency
- Developed software in C for AM263P peripherals (**GPIO, LIN, ADC, EPWM**), facilitating the testing of TIDA-020079
- Executed **bulb characterization testing** on the HC high-side switch family by employing programmable voltage supplies, precision measurement equipment, and oscilloscopes to analyze switching behavior and validate performance metrics

Product Marketing Engineering Intern, Texas Instruments | Dallas, TX May 2024 – Aug 2024

- Adapted a **natural language processor** for Raspberry Pi to run on the TI-based BeagleY-AI using Linux and Python, demonstrating its viability as an alternative platform for customers
- Produced BeagleY-AI resources, including a demo video (t.ly/lgxyC), technical article (t.ly/L9G6H), and Git-based documentation (t.ly/jpBIId) to improve accessibility for new users

Leadership & Involvement

President & Vice-President, Generational Relief in Prosthetics (GRiP) | Gainesville, FL Aug 2024 – Present

- Oversee 250+ members across four divisions in developing 40+ 3D printed assistive technology to 30+ recipients annually
- Spearhead a partnership with the UF Occupational Therapy Department, doubling recipient numbers
- Organized a **hand stringing workshop** with **Medtronic** employees, producing ~20 upper limb prosthetics
- **Lead introductory workshops on Python, Arduino, and SolidWorks**, engaging an average of 30 students per session

Golden Gator, UF Division of Student Involvement | Gainesville, FL July 2025 - Present

- Serve on a council of UF's top student leaders, **advising university leadership** on strategies to enhance student involvement

3D Printing Division Manager, GRiP | Gainesville, FL Aug 2023 – May 2024

- **Led a team of 10** to operate and maintain five Ender3 Pro printers, overseeing repairs and modifications while refining designs in **SolidWorks** and slicing in **Cura** to ensure consistent, high-quality production of **20+ upper limb prosthetics**

Skills

Technical | SolidWorks (Certified), Python, C++, MATLAB, ARM, Linux, KiCad, Word, Excel, Arduino IDE, Pandas, Jira, Git