

ANIEKAN EKANEM

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EDUCATION

Texas A&M University

Bachelor of Science in Engineering | Electrical Engineering

College Station, TX

Expected Graduation, May 2028

Relevant Coursework: Calculus I, II & III, Engineering Lab (Python), Program Design (C++), Digital Systems Design

Robotics Awards: Divisional semifinalist at the 2023 & 2024 FIRST World's Championship, 2024 New England District Champions, Excellence in Engineering Award

EXPERIENCES

Sqooasha

Austin, TX

Software Engineering Intern

June 2025 – August 2025

- Developed a Python-based web scraping tool using BeautifulSoup and requests, enabling extraction from 50+ unique webpages with varied HTML structures
- Built a CLI-based user interface allowing dynamic input of URLs and data fields, reducing scraping time by 80%
- Authored technical documentation covering architecture, usage, and extension paths

Digital Manufacturing & Distribution Lab (DMB-Lab)

College Station, TX

Undergraduate Research Assistant

August 2024 –

- Conducting research using AI-assisted thermal-fluid modeling to simulate Ti-6Al-4V alloy filament behavior during material extrusion additive manufacturing
- Developing Convolutional neural network (CNN) models with 2% error to predict temperature gradients and flow behavior for print optimization

Advanced Robotics Concentration (ARC)

Wallingford, CT

Lead of Electrical/Control Systems Management (FRC Team 7407)

September 2022 – March 2024

- Designed custom PCBs, sensor arrays, & motor control circuits; tuned PID loops for autonomous and teleoperated modes
- Collaborated with mechanical and programming sub teams to build and integrate drivetrain, arm, and vision systems.

STEM·E Youth Career Development Program

Houston, TX

Programming & Data Analytics Intern

June 2022 – August 2022, June 2023 – August 2023

- Led a team of 5 to create a website that increased user engagement rate by 23%
- Executed 3 projects within the team, presented research in program-wide meetings

PROJECTS

6-DOF Prosthetic Ankle (ANKL)

College Station, TX

Turtle Robotics Software Team

January 2025 –

- Designing real-time object recognition algorithm for a 6-DOF robotic arm, achieving 90% tool identification accuracy in varied lighting conditions
- Developing visual feedback-based PID control systems, achieving sub-0.7mm accuracy in precision tasks
- Exploring GPU acceleration for real-time inference tasks and adaptive motion control

Lunar Autonomy Project (Johns Hopkins University / NASA)

College Station, TX

Localization Team, SEDS

September 2024 – May 2025

- Built an autonomous agent that controlled simulated lunar robots through localization, IMU data, and April Tags
- Designed and simulated closed-loop feedback control systems with supporting circuitry for motor control, dexterity, and sensor integration in lunar rover prototypes
- Applied principles of computer architecture and hardware interfacing for control and sensor fusion

TECHNICAL & SOFTWARE SKILLS

Technical: CNC, CAD, VLSI Design, PID Controls, SolidWorks Creo, OnShape, Fusion 360

Programming: Python, C/C++, C#, Java, JavaScript, AWS, Git/GitHub, MATLAB

ORGANIZATIONS

Institute of Electrical and Electronics Engineer (IEEE), American Society of Mechanical Engineers (ASME), National Black Society of Engineers (NSBE), Turtle Robotics, Aggie Coding Club (ACC), Colorstack