James Jenkins

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EDUCATION

University of North Texas

Bachelor of Science: Electrical Engineering **2021 - 2024**

GradTrack - BS/PhD accelerated program

GPA: 3.6/4.0 - President's List, Dean's List

PROJECTS

- *Senior Design* **Fall 2023 - Spring 2024**
Designing a control system for two 48 VDC stepper motors and a 24 VDC actuator. Embedded microcontroller will control algorithms and programming.
- *IEEE R5 Robotics Competition* **April 2023**
IEEE-UNT's Robotics and Automation team built, coded, and tested a ground robot and drone to communicate with each other to navigate an obstacle course autonomously.
- *Library Database Management* **Spring 2022**
Over 1000 lines of C++ code for a final class project of a fictitious library

EXPERIENCE

Embedded Sensing and Processing Systems (ESPS) Lab **September 2023 - Present**
Laboratory PI: Dr. Xinrong Li

- Research Assistant for: "Empowering Directional Communications with Hybrid Beamforming and Deep Learning", funded by Army Research Lab (ARL)

SKILLS

Software: Python, C/C++, Linux, GNU Radio, Circuit Simulators: MultiSim, Simulink, LaTeX, Vensim, TensorFlow, MATLAB, Altium, AutoCAD, Blender, MIPS

Equipment: Arduino, STM Nucleo-L476RG, NI Ettus USRP X310, Multimeter, Oscilloscope, Function Generator, Spectrum Analyzer, Logic Analyzer, Breadboard, Soldering

LEADERSHIP

Institute of Electrical and Electronics Engineers UNT - **Secretary** **2023**

Robotics and Automation Society UNT chapter - **Vice Chair** **2022-23**

AWARDS

Southwestern Advantage:

- **Gold Seal Gold Award** - Worked 80+ hours/week all summer **Summer 2022**

IEEE-Eta Kappa Nu Honor Society - **Lambda Zeta**

INTERNSHIPS

Research for Intelligence and Security Challenges (RISC) Intern **May - August 2023**
Applied Research Laboratory for Intelligence & Security (ARLIS), University of Maryland
Faculty mentor: Dr. Hassan Salmani, Howard University
Project WA: Policy Models for Enhancing the STEM Talent Pipeline

- Obtained US security clearance
- Researched ways the US federal government can influence K-12 STEM education
- Modeled K-12 STEM pipeline using Vensim: a system dynamics modeling software
- Graphically predicted an 11% positive increase in STEM students
- Presented the findings to ARLIS community for the RISC Research Showcase

Southwestern Advantage, Nashville, TN **May - August 2022**
Sales Entrepreneurial Internship

- Independent contractor in direct sales of educational products
- Executed ordering, inventory, accounting, scheduling, sales, and delivery of products
- Prospected and approached over 2,600 families of various socio-economic backgrounds as potential clients
- Personal retail sales of approximately $20,000 in 12 weeks