Daniel Yu

Portfolio GitHub LinkedIn zhanxiangyu@tamu.edu 512-968-5454

EDUCATION

Master of Science, Engineering Technology **Texas A&M University**
Graduation: May 2026

Bachelor of Science, Engineering Technology(Electronic Systems) **Texas A&M University**
Minors: ***Computer Science*** *&* ***Cybersecurity*** *Major GPA: 3.56*
Graduation: May 2024

WORK EXPERIENCE

Graduate Researcher **College Station, TX**
ETID Department at TAMU *Aug 2024 - Present*

- The research aims to realize 3D radar imaging to monitor and analyze rooftops/buildings integrity.
- The plan is to use Tomography SAR (Synthetic Aperture Radar) imaging techniques. Namely, the radar board is treated as a black box, and configured to generate 2D image slices of the 3D environment (Tomography) while moving to different positions (SAR).
- The project will be implemented in Python and C++.

Graduate Teaching Assistant **College Station, TX**
ETID Department at TAMU *Aug 2024 – Present*

- Lectured and guided students on how to use semiconductor devices, such as diodes, FET, BJT, and op-amps, to implement analog IC applications, such as power supplies, active filters, signal conditioning, and amplifiers.
- Using test equipment for analog IC, such as oscilloscope, multimeter, network analyzer, spectrum analyzer, to diagnose issues in students' circuits.

Automation Engineer Intern **Beijing, China**
Beijing HangZhen Technology Co., Ltd *May 2023 – July 2023*

- Analyzed PLC programs of automation lines for documentation and continuous integration.
- Applied automation techniques to program Siemens PLCs to coordinate between different machine tools and the production control software.
- Collaborated with colleagues about standardizing the process of project execution and management.

PROJECTS

2D Topdown Spaceshooter Game *June 2024 - Sep 2024*

- Researched relevant C/C++ libraries and related APIs for graphical applications and games.
- Applied OOP concepts and dynamic memory management to implement player, enemy, and bullet classes to realize game features.
- For specifics, reference GitHub.

Time Tracking Software *June 2024 – Aug 2024*

- Researched various Tkinter APIs to develop GUI for timer tracking and item creation.
- The application allows users to create items and associate them with certain categories in order to track and manage their workflows.
- For specifics, reference GitHub.

HRTBT Group - Embedded Software Engineer *Aug 2023 – May 2024*

- The project aims to create a remote vital sign measurement device using mmWave radar sensors and related peripherals.
- Analyzing software documentation of implemented features of hardware platforms to establish the groundwork for later development.
- Evaluating feasibilities of machine learning and multiple-input-multiple-output radar imaging for fasting processing time.
- Developing software processes to fulfill project scope using Python and Embedded-C

Text Adventure Game *Oct 2022 - Dec 2022*

- The text adventure game branches to different options and displays corresponding text on an LCD.
- The game is programmed in Assembly on an MSP432 with 32-bit ARM Cortex-M4F architecture.

Path Finding Robot *Apr 2022 – May 2022*

- Implemented sequential logic circuits in Intel Quartus Prime to program an FPGA-controlled robot to follow designated paths.

SKILLS

C, C++, MATLAB, Semiconductor Test & Validation, ATE, Embedded Systems & Firmware, Analog & Digital Electronics, Instrumentation, Control Systems, ARM Cortex-M Architecture, RTOS & Concurrent Programming, PLCs, Python, Data Structures and Algorithms, Computer & MCU Architecture, RF & Electromagnetics, Artificial Intelligence, Machine Learning, Java, HTML/CSS, JavaScript, LabView, HDL, VHDL, x86 Assembly, Cisco Networking Architecture, Network Systems/Security

HONORS

Dean's Honor Roll *Fall 2023, Spring 2024*

Distinguished Student *Spring 2023*