

DIETER STEINHAUSER

PROFILE

A driven, outgoing, and well-rounded individual currently studying at the University of Florida to acquire a Master of Science in Electrical Engineering. Proud member of the Audio Engineering Society, alongside Tau Beta Pi and Eta Kappa Nu engineering honor societies. Interested in analog design, digital design, computer engineering, digital signal processing, and the semiconductor industry.

CONTACT

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Website: <https://tinyurl.com/mryh2a4x>

SKILLS

Python C C++ MATLAB VHDL Assembly
Java R Git Linux Quartus ModelSim
LTspice Cadence

Lab Equipment Proficient (oscilloscopes, etc.)

PADS/Altium Schematic & PCB Design

Logic/Network analysis

Transistor level circuit design

IC level circuit design

Microprocessor/controller circuit Design

Fusion 360/Inventor CAD Design

ArcMap and ArcGIS

Microsoft Office

Digital Photography and Editing

CPR/AED Certified (7/2018)

PERSONAL PROJECTS

Raspberry Pico Development Board

Raspberry Pi arcade cabinet emulator with microcontroller gamepad input.

Arduino RC Quadcopter using LibrePilot.

Raspberry Pi VPN/Adblocker using OpenVPN and PiHole.

Raspberry Pi personal 2TB cloud using Nextcloud.

REFERENCES

Kevin Nguyen: 281-744-7326

Platform Dev. Manager – Cirrus Logic

EDUCATION

University of Florida | Master of Science in Electrical Engineering Expected Graduation Spring 2025 | GPA 3.5

- Coursework: Data Converters, VLSI Circuits, IoT Security.

University of Florida | Bachelor of Science in Electrical Engineering Graduation December 2023 | GPA 3.5 | Cum Laude

- Coursework: Circuits 1&2, Electronic circuits 1&2, Microprocessor apps, Signals and Systems, Comms Systems, Real-Time DSP, Digital Logic, Digital Design, HW Security, Electromagnetic Fields, Wireless Networks, Senior Design 1&2.

WORK EXPERIENCE

Platform Development Engineer Co-Op – Cirrus Logic (1/2022 – 8/2022)

- Developed Object-Oriented Python drivers for lab equipment such as power supplies, scopes, DMMs, SMUs, power analyzers, etc.
- Created drivers for I2C/SPI components including DACs and ADCs.
- Implemented and overhauled documentation creation using Sphinx.
- Collaborated with engineers while managing project release deadlines.
- Researched and designed USB-C Power Delivery UFP Circuit.

Teaching Assistant, Senior Design 1 & 2 – University of Florida (8/2023 – Present)

- Assisted in creation and refinement of course modules.
- Aided student learning of design reports and system integration.

Teaching Assistant, Digital Design – University of Florida (8/2022 – 12/2022)

- Created Lab quizzes and proctored lab demonstrations.
- Aided student learning of hardware design language and structures

Project Manager – IoT4Ag Drone Station under Dr. David Arnold (1/2024 – 5/2024)

- Organized and led a senior design team to continue a project I had kickstarted.
- Created and managed agile board work structure for a team of four engineers.
- Provided design expertise to new engineers while assisting the Professor with the project's recruitment, structure, and design goals.

PROJECT EXPERIENCE

IoT4Ag Autonomous Agricultural Drone Station – Senior Design (12/2023)

- Designed circuit/PCB for MPPT solar charging, battery SoC tracking, multi-rail regulation, power measurement, and protection circuitry for ~5-10A operation.
- Designed landing pad conductive contact charging circuit for high efficiency and circuit overhead on the drone.

120VAC/20VDC (3A) Linear Power Supply (2/2023)

- Designed circuit/PCB for power transformer step-down, rectification, filtering, and regulation of power for low noise, single rail projects.
- Implemented current and voltage sensing using Raspberry Pico for LCD.

Ultrasonic Theremin – Junior Design (11/2022)

- Designed circuit/PCB centered around Raspberry Pico microcontroller.
- Utilized systems of power regulation, audio amplification, data conversion, overclocking, and various status displays.

Time Domain Pitch Shifter / Voice modulator (12/2021)

- Applied audio effects in real time including pitch shifting, filtering, reverb and tremolo using a C2000 TI processor. Developed in embedded C.

MIPS Processor (11/2021)

- Developed, simulated, and emulated a 32-bit MIPS assembly Processor in VHDL.

Transistor XLR Condenser Microphone (9/2021)

- Created a Condenser microphone workshop explaining project using circuit analysis of existing Schoeps designs. Assembled Microphone and Designed PCB.

LEADERSHIP EXPERIENCE

Treasurer of UF Audio Engineering Society (5/22 – 3/23)

- Organized budgets, SG Finance communications, and events.
- Led Hardware team meetings and designed workshops.

Social Chair of Eta Kappa Nu: Electrical Engineering Honor Society (Fall 2021)

- Organized and led social events.
- Created networking opportunities among peers.