

Hannah Kirkland

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Education

Ph.D Electrical and Computer Engineering

University of Florida

Advised by Dr. Sanjeev Koppal

2022 – 2026

(expected)

B.S. Electrical Engineering

University of Florida

GPA: 3.33/4.00

2017 – 2021

Experience

Graduate Research Assistant

FOCUS Lab

2021 – Present

- *Quantum Based Privacy Preserving Camera*: Researched and developed a framework to control image privacy and utility using images encoded in quantum states and double deep q network reinforcement learning.
- *Controllable Optical Convolutions*: Researching and developing controllable in camera optical convolutions.

Product Engineering Intern

John Deere

2021

- *Range Detection Prototype*: Researched and developed a prototype using sensors in conjunction with a microprocessor and CAN to detect the current range of the vehicle.
- *Continuous Flow Hydraulic Switch Updates*: Reviewed the design for switch updates, finalized drawings, and executed product release workflow in Creo. Communicated with the manufacturer to finalize and gather necessary details for the update.
- *Intern Project*: Worked with other interns to identify potential cost saving areas across all compact utility tractors. Responsibilities included automating the data collection process with Python and Excel to save time.

Involvement

Hardware Design Lead

Audio Engineering Society

2021 – Present

Organize and lead the Hardware Design Team with the UF chapter of the Audio Engineering Society. Responsibilities include overseeing workshops and semester long group projects.

Treasurer

Baptist Collegiate Ministries

2018 – 2020

Responsibilities included managing a budget of \$4,257 yearly, managing reimbursements, and reserving campus resources for events.

Awards

L3-Harris Fellowship

2021

Relevant Classwork

- Machine Learning *Deep Learning For Computer Graphics, Fundamentals of Machine Learning*
- Signals *Real Time DSP, Fundamentals of DSP, Acoustics*
- Other *Computational Photography, Intro to Quantum Computing*

Skills

- Python *Qiskit, PyTorch, OpenCV, Micro/CircuitPython*
- PCB Design *Altium, KiCAD*
- 3D Modeling *SolidWorks, Blender*
- Digital Art *Krita, Clip Studio Paint*
- Other *Embedded C, MATLAB, L^AT_EX, Markdown, Git*