SARAH BROWN

Computer Engineer

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sarahbrown.github.io

EDUCATION

M.S. in Electrical and Computer Engineering **University of Oklahoma** Expected Fall 2022 **GPA: 4.0**
B.S. in Computer Engineering **University of Oklahoma** 2017 – Fall 2021 Norman, OK **GPA: 3.90**
B.A. in Mathematics **University of Oklahoma** 2017 – Fall 2021 Norman, OK **GPA: 3.90**
Study Abroad **OU @ Oxford** Summer 2018 Oxford, UK
Associates of Science **Lone Star College** May 2017 Houston, TX **GPA: 4.0**

SKILLS

Hardware Design:	FPGA, Verilog, Altium Designer, EAGLE, KiCad, Multisim
Platforms:	ESP32, Arduino, Raspberry Pi, mbed, Linux, Windows
Programming:	Python, C, C++, Java, R, Matlab, OpenCV, Pytorch, Tensorflow, Pandas, Numpy, SQLite
Other:	Blender, Git, HTML, JavaScript, CSS, LaTeX

WORK EXPERIENCE

University of Oklahoma **Teaching Assistant** Fall 2020 - Present Houston, TX

- Worked remotely as a teaching assistant for ECE courses including Digital Design and Computer Architecture
- Provided students assistance during office hours and lab sessions as well as graded assignments
- Developed labs and code for ESP32s/Arduinos so students could complete Digital Design labs remotely
- Hosted remote lab sections with 10-20 students per section providing real-time problem resolution
- Redesigned Digital Design course to improve hands-on learning and improve retention in the ECE majors

Gecko Robotics **Electrical Engineering Intern** Summer 2020 Houston, TX

- Worked remotely as an electrical engineering intern at Gecko Robotics
- Developed methods to contactlessly detect defects on tank floors while learning about laser scanning and computer vision

INVOLVEMENT

Sooner Competitive Robotics **President (2020 – 2022), Secretary (2019 – 2020)**

- Leader in an organization of 30+ students in the mission of building winning robots
- Organized events on campus for outreach and recruiting
- Developed particle filter system used to make robot heading converge for IGVC 2021-2022 competition

Mercury Team Captain (May 2019 – March 2020)

- Lead a team of 20 students on different subteams toward competing in a telecommunications robotics challenge
- Worked with members to develop autonomous subroutines
- Implemented technology to correctly identify an object emitting a 10 Hz pulse among four different objects

Women in Electrical and Computer Engineering **President (2019 – 2022), Vice President (2018 – 2019)**

- Planned activities and events for students in the college of Electrical and Computer Engineering
- Focused on outreach to and retainment of women within these majors and taught skills necessary to excel in classes

HAM Radio **2012 – Present**

- Earned highest level HAM Radio license (Extra)
- Ran the Get On The Air (GOTA) station, which introduces newcomers to HAM radio, at Field Day for local club several years

PROJECTS

Honors Research Internship **Summer 2020 – Fall 2020**

- Worked with a professor on search and rescue robotics research
- Focused on generating a current state of the art report and developing a project proposal for a multi-student project

HONORS & AWARDS

ECE Directors Service Award ECE Outstanding Leadership Award ECE Distinguished Mentor Award
Girl Scouts Bronze, Silver, and Gold Awards National Merit Scholar