

Kareena Clendening

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Education

BS Electrical Engineering, Minor in Computer Science May 2022

University of Wisconsin-Madison

GPA: 3.578, Dean's List-multiple semesters

Specialized Coursework: Digital Synthesis & Design, Digital Signal Processing Lab

Communication Systems, Microprocessors, Advanced Data Structures, Data Science

Experience

Electrical Engineering I at Affiliated Engineers Inc. (Madison, WI), May 2022-Present

- Designed building power systems for various clients in the healthcare, research and higher education industries.

Electrical Engineering Intern at Affiliated Engineers Inc. (Madison, WI) Jan 2021 - May 2022

- Developed electrical system sizing and layout by analyzing load, short circuit, voltage drop, and cable pull calculations
- Modeled power systems using software in Revit/BIM and SKM

Electrical Engineering Intern at Dunham Associates (Minneapolis, Minnesota), Summer 2020

- Renovated the St. Cloud Surgical Center and modeled the project using Revit software
- Coordinated in project meetings with contractors, architects, engineers

Scientific Instrumentation Intern at Space & Science Engineering Center October 2019-December 2020

- Calibrated electronic Atmospheric Emitted Radiance Interferometer to ensure accurate data and correct measurements
- Developed Python script for comparing school's satellites that is used for researching extreme weather conditions
- Delivered software updates to the Johnson Space Center. Updated outdated HimariCast procedure

Manufacturing Intern at Boston Scientific (Maple Grove, Minnesota), Summer 2019

- Drove continuous improvement process for manufacturing spaces and operational functions
- Presented results and recommendations to senior management to influence implementation decision
- Assembled life saving devices and ensured high quality products

Software: Python, System Verilog, Python Pandas, Java, C, Matlab, Linux, Assembly Language, Git, R

Electrical Hardware: I2C, Serial, SPI drivers, FPGA

Projects:

ECE 551 Digital Systems Design Designed an ASIC for controlling a robot to perform the "knight's tour" puzzle on a chess board. Design was done using System Verilog, with considerations for synthesizability such as area and meeting timing.

ECE 353 Microprocessors Implemented a version of the game space invaders by reading peripheral component data sheets (joystick, accelerometer, passive buzzer, LCD screen, and push buttons) to interface them with a microcontroller using C with FreeRTOS

Involvement: Madison Running Club, Nordic Skiing, Volunteering at First United Methodist Church Food Shelf, Habitat for Humanity, Society of Women in Engineers