Matthew Wei

Aspiring sophomore in Electrical Engineering with strong interest in microelectronics and semiconductors. Looking to build on-job experience with goal-driven companies and expand my professional network.

Contact Info



Overland Park, KS

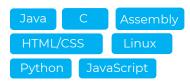


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Skills



Courses

Analog Signal Processing

Applied Linear Algebra

Computer Systems

Differential Equations

Fields and Waves

Hobbies & Interests

- Coding
- Weightlifting
- Video Games
- Music
- Languages

Involvement

- Triangle Fraternity
- IEEE
- Asian American Association

Education

University of Illinois at Urbana-ChampaignAugust 2020 – May 2024
Pursuing Bachelor of Science in Electrical Engineering
Minor in Computer Science
GPA: 3.78/4.00

Work Experience

Research Intern

U.S. Army Construction Engineering Research Laboratory
Champaign, IL June 2021 - August 2021

- Worked on energy-waste renewal project designed to treat and clean wastewater using electrical devices such as methane sensors, solenoids, and pH detectors
- Designed plumbing routes and implemented system to work with a PLC controls unit, increasing runtime efficiency up to 12%
- Team player and worked with 12-member team on lab demonstration,
 leading subsections tasks, and reporting project progress weekly

Projects

AM Radio Receiver

- Constructed audio demodulator using components including **op-amps**, **envelope detectors**, **and frequency filters**
- Applied **frequency domain** transformations to detect **envelope** of signal and then demodulate using **bandpass filters**

Vending Machine Coin Sensor

 Assembled and developed circuit using binary logic and flip-flops that distinguishes type of coin inserted and responds with appropriate output

Light-Seeking Car

 Built and integrated using photodetectors, potentiometers, and transistors a mini car which automatically drives away from dark environments

Coffee Heat Sensor

 Designed sensor which detects temperature of coffee mug using components, namely comparators and thermistors