John Trachte

Electrical Engineering & Computer Science Student

Education

UW Platteville: GPA 3.43 / 4.0   May 2027

Electrical Engineering BS, Computer Science BS, Spanish Minor

Work Experience

CenterPOINT: Innovation/Engineering LLC Team Lead   January 2024 - Present

- Balanced event cost with student interest to maximize engagement with LLC programming, achieving record attendance
- Ensured appropriate tracking and documentation of University and taxpayer funds for events to simplify year-end accounting
- Managed information flow with Microsoft Office suite, especially Outlook and Teams to ensure necessary information was available to team members

PepsiCo: Summer Assistant   June 2022/23/24 - August 2022/23/24

- Assisted untrained coworkers in learning job functions and automated equipment to update older facilities
- Coordinated delivery schedule with truck load to shave off hours-long inefficiencies

Skills

Languages:
C/C++, Python, Java, ARM Assembly, BASH, SQL

Software:
Linux, Git, Make/CMake, STM32CubeIDE, Docker, GDB, KiCAD, B2 Spice

Tools:
Multimeter, Oscilloscope, Function Generator

Projects

Synth VCO   *(KiCAD, Oscilloscope)*

Design a cheap, flexible voltage controlled oscillator covering the audio frequency range.
- Designed a suitable circuit with controlled frequency using only three distinct parts, drastically lowering bill of materials cost compared to existing oscillators
- Tested design using stocked components and tools to modify schematic for appropriate operating voltage ranges
- Derived nonlinear frequency response from linear input voltages to track oscillation to musical scale

Attendance App   *(Python)*

Log and manage class attendance using student ID cards and PN532 NFC reader.
- Worked with an Agile team over three sprints using test-driven development to maintain functionality across sprints
- Interacted with RESTful API via JSON strings to log attendance data
- Designed object-oriented system with SOLID principles to simplify development

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