William Dwyer

Education

University of Wisconsin-Madison
Bachelor of Science in Computer Engineering, expected May 2026
Double Major: Computer Sciences | Certificate: Entrepreneurship
GPA: 4.0/4.0 | Dean's Honor List (4/4 terms) | William F. Vilas Scholarship
Relevant Courses: Introduction to Algorithms, Computer Graphics

Work Experience

Keysight Technologies, Colorado Springs, Colorado
Software Development Internship, May 2024 – August 2024

- Initiated cross-functional team collaborations to abstract driver-to-peripheral I2C communications, improving integration efficiency and ensuring seamless operation between software and peripherals
- Led Agile C++ development to support diverse measurement instruments, securing on-time project delivery by defining clear objectives and exit criteria through thorough investigation
- Enabled instrument-agnostic calibrations by designing and implementing an interface for user calibration modules, significantly reducing development time

Paper Converting Machine Company, Green Bay, Wisconsin
Engineering Intern, May 2023 – August 2023

- Automated production trend and bottleneck identification with SQL and Python for data retrieval and analysis, engineered interfaces to visualize information
- Immediately met customer demand after presenting solutions and incorporating feedback for actionable, user-centric improvements, increasing client satisfaction

Relevant Experience

Wisconsin Autonomous, University of Wisconsin-Madison

- Enhanced vehicle safety by creating an embedded light system integrated in the Controller Area Network using an Arduino and external electrical components
- Documented theoretical and actual power usage of systems, researched sustainable alternatives

Picto-Guess

- Worked in a partnership to define and implement a dynamic two-player game in C, overcoming challenges with UART communications seamless to deliver seamless gameplay
- Programmed drivers for hardware components and managed resources via FreeRTOS, ensuring real-time performance and efficient resource utilization

MadHacks Hackathon

- Formulated an algorithm for ideal text splitting, designed a Java Swing GUI, and optimized graphics generation, reducing processing time by 80%

LED Sign Visualizer

- Created a Python GUI with Tkinter to quickly and accurately change a custom-soldered LED display via Python-to-Arduino serial communication enabling rapid updates and user-friendly control

Activities

Wisconsin Quantum Computing Club | Hoofers Outing Club | Hoofers Ski and Snowboard Club

Skills

Proficient in Java, C++, Python, C, Git | SOLID design principles | Object-oriented class design patterns