Joshua Anicette

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EDUCATION

Drexel University Philadelphia, PA
Major in Computer Engineering; Minor in Software Engineering September 2023- June 2028

RELEVANT COURSEWORK

Electric Circuits | Data Structures | Linear Algebra | Digital Logic Design | Design with Microcontrollers | Computer Organization

SKILLS

Programming & Scripting: Python, C++, C, TypeScript, JavaScript, Java, Bash, MATLAB, SQL, HTML, CSS, R,
Software & Tools: Linux, VS Code, GitHub, Onshape, Autodesk Fusion 360, KiwiPlan, Solidworks, Microsoft Office
Embedded Systems & Hardware: Arduino, Raspberry Pi, Digital & Analog Circuits, GPIO, PCD Design, UART/SPI

PROJECTS

Weather Dashboard Application Drexel University
Python Developer October 2024 - Current

- Designed and implemented an interactive weather dashboard using Python, integrating OpenWeatherMap API for real-time weather updates, 5-day forecasts, and air quality data for global cities serving 10+ users
- Integrated Matplotlib to create dynamic visualizations of temperature trends and weather conditions, enhancing data accessibility and user engagement for 8 daily users
- Developed robust error-handling mechanisms to ensure smooth application performance reducing API failures by 15% and improving user experience
- Delivered a feature-rich tool combining real-time data retrieval and graphical analysis, improving decision-making and user experience.

Focus Assistant - Embedded Focus Tracker Drexel University
Hardware Systems Developer(Arduino + Raspberry Pi) June 2025 - Current

- Built an embedded user-state tracker using HC-SR04 ultrasonic sensor on Arduino Mega, integrating RGB LED and buzzer outputs through GPIO control and timing logic
- Designed a multi-state alert system (focus, short break, distracted) with precise timing logic and GPIO control, reducing distraction time by 40% during testing
- Established serial communication between Arduino and Raspberry Pi using PySerial; logged and visualized 10K+ state entries with a custom Flask dashboard
- Optimized signal reliability with ±5 cm sensor calibration and streamlined breadboard circuitry for stable feedback

Medical Robotics for Surgery Drexel University
Image Processing Programmer April 2024 – July 2024

- Engineered a pill tracking system enabling a robotic arm to guide it via a magnetic field for artery unblocking improving accuracy by 10%
- Tuned PID control parameters on Arduino for 4 motor channels, improving angular resolution and system response time by 10%
- Developed and integrated MATLAB-based image processing algorithms for precise object tracking, significantly enhancing performance
- Developed proficiency in designing and implementing control systems for a medical application, collaborating with a team of 2 cross functional engineers to ensure seamless integration and successful project outcomes

EXPERIENCE

Weber Display & Packaging Philadelphia, PA
Logistics Software Intern March 2025 – September 2025

- Processed over 50 bills of lading daily using KiwiPlan, a logistics software for managing packaging distribution, improving order accuracy by 15% and speeding up box shipments by 10% in a high-volume facility.
- Managed backend transfers for 20 trailers per shift with KiwiPlan, a tool for tracking and coordinating shipments, reducing errors by 20% and ensuring 98% on-time delivery to keep drivers on schedule.
- Used KiwiPlan software to optimize workflow, cutting processing time by 12% and improving coordination of box deliveries to support efficient driver operations.