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

PROJECTS

Embedded Focus Tracker | Hardware Systems Developer **Arduino | Raspberry Pi | Python | C++**

- 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 | Image Processing Programmer **MATLAB | Arduino**

- Developed a real-time pill tracking system using MATLAB image analysis and magnetic field simulation, enabling a robotic arm to follow the pill path for surgical navigation — improved tracking precision by 10%
- Tuned PID control loops on Arduino microcontrollers to drive 4 stepper motors with enhanced resolution and timing accuracy, boosting robotic arm responsiveness by 10%
- Designed MATLAB scripts using edge detection, color filtering, and object centroid tracking to enable accurate real-time pill position detection
- Collaborated with 2 cross-functional engineers to integrate hardware control and image processing modules, delivering a proof-of-concept surgical navigation system with validated control system performance

Invoicing System | Full Stack Developer **Flask | SQLite | Vercel**

- Built a full-stack invoicing app using HTML, CSS, and Python (Flask), allowing 20+ monthly customers to generate and download PDF invoices in real time — cutting delivery time by 30%
- Designed a Flask backend with SQLite to auto-generate sequentially numbered invoices using ReportLab, reducing data entry errors by 25% across 10+ monthly invoices
- Optimized query performance using indexed date-based filtering in SQLite, improving invoice retrieval efficiency by 40% for monthly customer access
- Configured CI/CD with GitHub Actions and deployed the frontend via Vercel for automated builds and zero-downtime updates, improving collaboration across dev-client teams

EXPERIENCE

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

- Leveraged KiwiPlan ERP remotely via PuTTY/SSH, executing CLI commands to process and validate 50+ bills of lading daily, improving accuracy by 15% and reducing data-entry time by 20%.
- Automated and executed backend trailer load transfers for 20+ trailers per shift, streamlining dispatch coordination and achieving a 98% on-time delivery rate while cutting routing errors by 20%.
- Optimized cross-department workflows by identifying repetitive manual steps and applying shortcut-driven task sequences, resulting in a 12% reduction in processing time for box delivery operations.