Dillon Michlena

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EDUCATION

Purdue University — **West Lafayette, IN**
BS, Robotics Engineering Technology — ***Expected May 2027***
Minor: AI/Machine Learning; Concentration: Autonomy & UXVs — **GPA 3.66**
John Martinson Honors College (Scholar, Spring 2026); Dean's List (multiple semesters)

PROFESSIONAL EXPERIENCE

Integer Technologies — **Gulfport, MS**
Robotics Engineering Intern — ***May 2026 - Aug 2026***

- Co-engineered a differential-drive unmanned surface vessel (USV) for manual/autonomous control using ArduPilot and QGroundControl as part of Integer's **$9.8M** ONR-funded seabed-warfare program, leading **3** in-water validation tests with 0 safety incidents
- Managed 3D-printing operations across **78** print jobs totaling **755** hours with a **92%** success rate

Corsha — **Vienna, VA**
Engineering Intern — ***May 2025 - Jul 2025***

- Developed and deployed an automated system-health monitoring tool using Kubernetes CronJobs, turning recurring checks into a scheduled containerized workflow
- Configured staging environments via SSH, Docker, and Linux for customer engineers to test new features

Corsha — **Vienna, VA**
Engineering Intern — ***May 2024 - Jul 2024***

- Developed **4** Python scripts to migrate and modernize documentation infrastructure, automating repetitive tasks and reducing build time by **12%**

LEADERSHIP AND INVOLVEMENT

Purdue Lunabotics Club — **West Lafayette, IN**
Fabrication Operations Team Lead (prev. Drivetrain Subteam) — ***Aug 2025 - Present***

- Lead mechanical members within a **150**-member club, coordinating manufacturing and CAD review for manufacturability while owning workspace/testing-pit operations and tracking part timelines
- Previously designed the drivetrain as a Drivetrain Subteam member, contributing to a **4th**-place finish in the Caterpillar Autonomy Award and **8th** in Systems Engineering at the 2026 NASA Lunabotics Challenge

Purdue University — **West Lafayette, IN**
Resident Assistant — ***Aug 2024 - Present***

- Planned and executed **35+** resident programs for a **50+** resident community, fostering student growth and success
- Responded to **~15** on-call emergencies supporting an **800+** resident community, contributing to hall safety and incident response

PROJECTS

Desktop Robot Arm — **Apr 2025**

- Built a three-servo desktop robotic arm (Arduino Uno, MG996R servos) with C-based potentiometer control and record/playback logic for repeatable positioning

Lithophane Light Box — **Dec 2025**

- Designed a battery-powered LED circuit, created a custom PCB in KiCad, hand-soldered components, and 3D-printed an enclosure integrating the PCB, battery, and switch

Banana Bruise Detection App — **Nov 2025**

- Developed a MATLAB computer-vision application using image processing and feature extraction to distinguish healthy and bruised regions

RELEVANT SKILLS

Robotics & Automation: ROS2, embedded systems (ATmega2560), PLCs (Rockwell CCW), FANUC/YAMAHA robot programming
CAD & Fabrication: SolidWorks, Fusion 360, OnShape, Siemens NX, KiCad, 3D printing, soldering
Programming & ML: Python, C, Java, C#, MATLAB, NumPy, scikit-learn, Keras, TensorFlow
Software & Tools: Docker, Kubernetes, Git/GitHub, PostgreSQL, Unity