Michael Wall

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EDUCATION

Mechanical Engineering, Bachelor of Science — May 2028
Purdue University, West Lafayette, IN — *GPA: 3.94/4.0*

SKILLS

CAD: SolidWorks, Siemens NX, Fusion 360, Mastercam
Manufacturing: 3D Printing, Milling & Turning (Manual & CNC), Laser Cutting
Coding: MATLAB, Python, C, GitHub

TECHNICAL EXPERIENCE

Purdue Lunabotics — Oct 2025 – Present
Deposition Subteam Member
- Developed an autonomous robot to compete in NASA's annual Lunabotics competition
- Designed regolith deposition subsystem components in SolidWorks, focusing on manufacturability and integration with other subteams
- Presented designs at Design Reviews and integrated design feedback from reviewers

Synthetic Data Generation for Computer Vision Research — Aug 2025 – Present
Herrick Laboratories, Purdue University
- Developed synthetic datasets in Blender to train computer-vision models for magnetic particle inspection (MPI) process in collaboration with the Steel Founders' Society of America (SFSA)
- Collaborated with graduate researchers to integrate synthetic data into machine learning models
- Authored research paper analyzing effectiveness of various synthetic data generation methods for training machine learning models

Strengthening American Infrastructure Research — June – Aug 2025
Bowen Laboratory, Purdue University
- Supported large-scale structural testing of a concrete specimen and facilitated data collection, analysis, instrumentation, and test execution
- Conducted a literature survey with academic dissertations to tune, run, and debug a Finite Element Analysis (FEA) model with OpenSeesPy
- Developed a MATLAB application for presenting displacement data, notes, and photos from tests, and optimized it for reuse with future test data

PROFESSIONAL EXPERIENCE

Resident Assistant — Aug 2025 – Present
Cary Quadrangle, Purdue University
- Managed and supported a diverse community of residents, ensuring a safe and inclusive environment
- Worked alongside team of 25 other Resident Assistants to resolve conflicts and emergencies while maintaining detailed and confidential records
- Maintained a $1000+ budget to execute weekly programs to support community building
- Utilized strong interpersonal communication skills to reduce and resolve conflict

EXTRACURRICULARS

Purdue Jazz Education Network — Dec 2024 – Present
Founding Officer, Combo Director
- Founded student-led organization dedicated to education and community building for jazz musicians
- Organized regular performances for student-led jazz groups