# Ryan Bosley

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#### RESEARCH EXPERIENCE

## NASA Lunabotics Competition

August – May 2024

- Engineering, 3D-printing, assembly, programming, and operation of lunar robot with a team of 4
- Autonomously collects and dumps Lunar soil into form of a berm
- Achieved 1<sup>st</sup> place in the first-year team category for demonstration

# Natural Language Processing Robot (NLP)

August 2023 - Present

- Engineering, 3D-printing, assembly, programming and implementation of NLP robot
- Interacts with home and manufacturing environments through voice command inputs

## VR-Rendered Stormwerx Research Laboratory

October - November 2024

- Completed 360-degree scan of Harrisburg University's Stormwerx Research Laboratory for 3D and Virtual Reality (VR) tours
- Secured grant funding for Harrisburg University

#### VR-Rendered Harrisburg University

April – December 2022

• Lead team of 5 students to complete 360-degree scan of Harrisburg University's campus for 3D tours and VR (Virtual Reality)

#### PROFESSIONAL EXPERIENCE

Advanced Manufacturing Intern, Harrisburg University, Harrisburg, PA

August 2024 - Present

- · Conducts assembly, set-up, and programming of desktop 3D printers and Universal Robot arms
- Operates FDM, metal, powder-bed, polyjet and resin printers to mass-produce products

Lead Volunteer & Student Worker, Extended Reality Task Force, Harrisburg, PA March 2022 – Present

- · Active member/lead volunteer of XR Task Force Contributes 3D modeling skills
- AR/VR operations and demonstrations for events such as medical conferences, Department of Defense conferences, faculty tours, and high school tours

Lead Game Developer: 3D Modeling, Map Building, & User Interface

August 2021 – Present

- Owner of "Icelord Games LLC", leads game development on the videogame platform ROBLOX
- Spearheaded marketing campaign to successfully popularize 14 games into the top 500 out of five million released games

Prototyping Engineer Intern, U.S. Army DEVCOM, Edgewood, Maryland

June - August 2024

- Collaborated with a team of 3 to improve impact and water resistance for pipe valve sealings on U.S. Navy ships
- Utilized SolidWorks to engineer 360 camera mounts for Boston Dynamics quadruped robot
- Engineered cradles for chemical sensors attached to unmanned arial vehicles
- 3D printed all engineered items with FDM, powder-bed, polyjet, and resin 3D printers

Expeditionary Manufacturing Intern, Harrisburg University, Harrisburg, PA December 2023 – April 2024

- · Created manufacturing simulations through NVIDIA Omniverse Action Graph programming
- · Teacher assistant: Lectured and guided class during absences of primary teacher

Exploration Outreach Assistant, Harrisburg University, Harrisburg, PA

June - August 2022

- Teaching assistant for professors in leading STEM-themed VR summer camp
- Created 3D model of an Artificial Gravity Space Ring spins at high speed to simulate gravity

Club SciKidz, Anne Arundel County, MD

June - August 2020 & 2021

- Full-time counselor and project teacher at STEM-based summer camp for children ages 4-15
- Facilitated engaging activities including video game design, 3D printing, drone piloting

#### LEADERSHIP & COMMUNITY EXPERIENCE

Robotics Team Volunteer, Harrisburg University, Harrisburg, PA

March 2024

 Presented 3D-printed and other mechanical components of NASA robot to high school students throughout Harrisburg metropolitan area

EDUCATION GPA: 3.75

Harrisburg University of Science and Technology, Harrisburg, PA Bachelor of Science in Advanced Manufacturing

May 2025

# **SKILLS**

Hard Skills: SolidWorks, Fusion 360, 3D printing operations & post-processing, robotics design, programming & operation, Arduino & Raspberry Pi, factory simulations, Mixed Reality development & operations, Front End Development – HTML & CSS, Blender, Adobe Substance Painter

Soft Skills: Leadership, communication, problem solving, critical thinking, adaptability, hard-working, 180 WPM typing speed