Preston Ward

7430 South 198th Street | Omaha, NE 68028 | (402) 208-4700 | pward6@huskers.unl.edu



# Education

**University of Nebraska-Lincoln,** | Lincoln, NE

*Bachelor of Science in Computer Engineering*

August 2022 - Present

# Skills

Python, C/C++, C#, Assembly Language Programming, Java, PCB design, Robotics, Linux, PyTorch, SQL

# Relevant Coursework

Physics 1 & 2, Computer Science 1 & 2, Circuits 1 & 2, Discrete Mathematics, Computer Organization, Embedded Systems, Data Structures and Algorithms

# Experience

Research Assistant- *May 2022 - Present*

* Designed and implemented inverse kinematics algorithms, aiming to control a Baxter robot via an Oculus Quest VR headset.
* Developed cross-platform communication framework for ROS-enabled robotic systems.

Member on Electrical Engineering Design Team | UNL Aerospace Club – *March 2022 – Present*

* Designed and fabricated PCBs for satellite components, ensuring optimal performance and reliability.
* Conducted rigorous electrical testing and troubleshooting of integrated systems, identifying, and resolving issues to meet project milestones and launch deadlines.

Software Developer | UNL’s Research Engineering and Design Teams - *August 2022 – May 2023*

* Created intuitive and user-friendly UI interactions that streamlined tasks within space exploration missions.
* Facilitated product validation and delivered a comprehensive presentation to NASA scientists and engineers.
* Developed a C# Unity application in an Agile development cycle.

Literature Reviewer **-** *August 2022 - December 2022*

* Engaged in literature analysis relating to tele-robotics in remote laboratories.
* Presented my findings to a panel of professors in the Department of Electrical and Computer Engineering

**Publications**

*A novel Approach to Engineering Education Laboratory Experiences through the Integration of Virtual Reality and Telerobotics* (Accepted, Pending Publication) | American Society for Engineering Education | August 2023

**Projects**

*Integrating Python speech recognition with a natural language processing deep learning model using PyTorch, NumPy, and SpeechRecognition*