

# Jacob Kruse

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[LinkedIn](#) | [GitHub](#)

## Employment

### R&D Engineering Intern

IPG Photonics - Oxford, MA  
May 19, 2025 - July 25, 2025

Developed automated R&D test stations, conducted tests, and analyzed data to optimize laser performance

### Graduate Research Assistant

University of Georgia/THINC Lab - Athens, GA  
August 14, 2024 - May 8, 2025

Worked on research involving robotic manipulators, camera-based classification, simulations, and ROS2

### Robotic Programming Intern

Lincoln Electric Automation - Bettendorf, IA  
May 15, 2023 - August 4, 2023

Programmed FANUC robots for diverse applications including welding, material handling, and vision tasks

### Gas Distribution Engineering Intern

MidAmerican Energy - Rock Island, IL  
May 23, 2022 - August 18, 2022

Tested, troubleshooted, and fixed unprotected gas mains to uphold the standards for cathodic protection

### Civil Engineering Intern

IMEG - Rock Island, IL  
May 2021 - August 2021

Completed fieldwork on several Civil projects and tested concrete, asphalt, and soil in the lab

### Other Positions

#### Learning Assistant

Western Illinois University, August 2021 - May 2023

#### Grounds/Maintenance

Boone's Lawn Care, August 2020 - November 2020

#### Grounds/Maintenance Crew

John Deere/Amentum, June 2020 - August 2020

## Education

### Master of Science in Computer Science

University of Georgia - Athens, GA  
In progress with expected graduation in May 2026

### Bachelor of Science in Electrical Engineering

Western Illinois University - Moline, IL  
Graduated in May 2024 with a 3.91 GPA  
Double Minor in Mathematics and Physics  
Received Electrical Engineering Department Scholar and Summa Cum Laude Awards

### High School Diploma

Orion High School - Orion, IL  
Graduated in May 2020 with a 4.0 GPA  
Received Illinois State Scholar Award

## Additional Experience

### Autonomous Vehicle Project

August 2023 - May 2024  
Worked as the Leader of the Navigation Team for my Senior Engineering Design Project. Worked with ROS2, LiDAR, Camera, GPS, IMU, and other systems to make up the vehicle guidance system.

### Volunteer Basketball Coach

October 2022 - February 2024 (2 seasons)  
Acted as the Head Coach of the Orion High School Freshman Basketball Team. Attended games, helped at practices, and assisted with JV and Varsity

## Skills

<u>Programming</u>	<u>Software</u>	<u>Hardware</u>	<u>Miscellaneous</u>
Python	KUKA OS	LiDAR	Wiring
C++	FANUC OS	RGBD Camera	Soldering
ROS2	SolidWorks	GPS/GNSS	Troubleshooting
Ubuntu/Linux	Fusion 360	IMU	Quick Learner
Nav2/MoveIt	NI Multisim	Arduino	Strong Leader
MySQL	Office 365	Raspberry Pi	