Ross Worobel

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EDUCATION

University of Minnesota, Twin Cities — Major GPA: 3.94 / 4.00
Ph.D. Computer Science — Graduation (Expected): Spring 2027
Research focus: Vision-based robotic grasping
Advisors: Prof. Changhyun Choi and Prof. Nikolaos Papanikolopoulos

University of Illinois Urbana-Champaign (UIUC)
B.S. Chemistry

PROFESSIONAL EXPERIENCE

Google, Inc. — Redmond, WA
Software Engineering Intern — Summer 2025

· Supported Google Cloud's robotic fleet consisting of hundreds of autonomous and semi-autonomous robots
· Designed and wrote LLM agent utilizing the Gemini models, grounded to internal data via RAG
· Designed and wrote data pipeline to feed the LLM agent
· Submitted thousands of lines of code, hundreds of lines of documentation, and one accepted design document over the course of 12 week internship

Schneider Electric — Boston, MA
Research Intern — Summer 2024

· Altered open-source codebase for steel plant emissions to help analyze environmental impact of green policy initiatives
· Helped complete publication under review in the Journal of Industrial Ecology

Honeywell — Minneapolis, MN
Software Engineering Intern - Automation & AI — Summer 2023

· Worked on a custom robotic platform which includes multiple cameras, LIDAR, laser rangefinder, GPS, accelerometer, and PTP switch
· Wrote ROS nodes, launch files, and configuration files in Python and C++
· Designed and wrote automated data analysis process for the data coming off the robot in Python

RESEARCH EXPERIENCE

Choice Robotics Lab, University of Minnesota, Twin Cities
Ph.D. Student

· Advised by Prof. Changhyun Choi
· Participating in object grasping, manipulation, object perception, and reinforcement learning research

Air Conditioning & Refrigeration Center, UIUC
Undergraduate Research Assistant

· Advised by Prof. Pega Hrnjak and Ph.D. Student Yang Zou
· Helped in researching novel air conditioning system for possible future use in cars, airplanes, trains, or other moving vehicles

PUBLICATIONS

X. Lou, H. Yu, **R. Worobel**, Y. Yang, and C. Choi *"Adversarial Object Rearrangement in Constrained Environments with Heterogeneous Graph Neural Networks"* in IROS (2023)

VOLUNTEERING & OUTREACH

FIRST Robotics Minneapolis, MN
Mentor

· Help high school-aged students design and build a robot to accomplish various tasks
· Provide technical knowledge on computer science and robotics to various members of the team
· Provide general insight on college experiences and help with undergrad applications

AWARDS

University of Minnesota, Twin Cities Minneapolis, MN

· MnDRIVE Graduate Scholar
· John T. Riedl Memorial Graduate Teaching Assistant Award Finalist