

EDUCATION

University of Minnesota, Twin Cities

Ph.D. Computer Science

Research focus: Vision-based robotic grasping

Advisors: Prof. Changhyun Choi and Prof. Nikolaos Papanikolopoulos

Major GPA: 3.94 / 4.00

Graduation (Expected): Spring 2026

University of Illinois Urbana-Champaign (UIUC)

B.S. Chemistry

Graduation: Spring 2012

PROFESSIONAL EXPERIENCE

Schneider Electric

Research Intern

Boston, MA

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

Software Engineering Intern - Automation & AI

Minneapolis, MN

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

Donnelley Financial Solutions

Independent Consultant - Data Science & Engineering

Chicago, IL

2017-2020

- Helped develop an internal document classification tool which automatically processes SEC filing documents
- Built and maintained a web-based front-end for the above tool

West Monroe Partners

Senior Consultant - Data Engineering

Chicago, IL

2013-2017

- Stored, maintained, and analyzed data with development primarily in SQL, Python, C#, and JavaScript
- Worked for dozens of clients from Fortune 100 companies to startups
- Promoted two times during 3.5 year tenure

Dotomi, LLC

Integration Engineer

Chicago, IL

2012-2013

- Owned all technical aspects of online advertising campaigns for multiple clients
- Wrote an Excel parsing program in Python which allowed otherwise unreadable complex Excel data files to be utilized in advertising campaigns
- Wrote an image aggregation and de-duplication program in Python

IGN Entertainment

Software Engineering Intern

San Francisco, CA

Summer 2011

- Helped design and build internal software to help with the employee review process

RESEARCH EXPERIENCE

Choice Robotics Lab, University of Minnesota, Twin Cities 2020-current
Ph.D. Student

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

Air Conditioning & Refrigeration Center, UIUC 2011-2012
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 2020-Current

- 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

West Monroe Partners Chicago, IL
Senior Member - Charity Committee 2013-2017

- Helped plan dozens of charity events for WMP, including the largest charity event of the year, the Chicago Cares Serve-a-thon
- Personally volunteered over 400 hours of time to community service events in the Chicagoland area
- Awarded the title of Senior Member after two years of consistent service

MENTORSHIP EXPERIENCE

West Monroe Partners Chicago, IL
Career Advisor & Coach 2013-2017

- Coached two interns and three new-hire consultants; coaches at WMP are tasked with making the new hires feel at home and ensuring that they have someone to ask questions to
- Advised one summer intern; career Advisors at WMP are direct supervisors who ensure that the member is on track for their career goals

AWARDS

University of Minnesota, Twin Cities Minneapolis, MN

- MnDRIVE Graduate Scholar 2020
- John T. Riedl Memorial Graduate Teaching Assistant Award Finalist 2021