Ross Worobel

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worobel2.github.io

EDUCATION

University of Minnesota, Twin Cities   Minneapolis, MN
M.S. Robotics (thesis option), GPA: 3.90/4.00   Expected Graduation: Spring 2022
Coursework:Robotics†, Machine Learning†, Computer Vision†, Algorithms & Data Structures*, Artificial Intelligence*, Robotic Control Systems; †-Course in progress, *-Final grade >98% ("A+")

University of Illinois at Urbana-Champaign   Champaign, IL
B.S. Chemistry   Graduation: Spring 2012

OBJECTIVE

To gain further robotics, machine learning, and computer vision research experience during the summer of 2021 in preparation for robotics Ph.D. program applications. I plan on applying to Ph.D. programs during the Fall 2021 semester for admittance during the Fall 2022 semester.

RESEARCH EXPERIENCE

Choice Robotics Lab
University of Minnesota Department of Electrical & Computer Engineering
Advised by Prof. Changhyun Choi

· Participating in object grasping, manipulation, object perception, and reinforcement learning research.
  · Spring 2021 semester: Building the Open Dynamic Robot Initiative TriFinger robot. The TriFinger robot is an open-source grasping robot designed to support research in dexterous manipulation. Currently responsible for acquiring all of the pieces of the robot, building the robot, installing the correct software onto the robot, and getting the robot ready for novel research applications.
  · Beyond the Spring 2021 semester, the robot will be used to do research which I will write my master's thesis on.

Air Conditioning and Refrigeration Center
UIUC Department of Mechanical Science & Engineering
Advised by Ph.D. student Yang Zou and Prof. Pega Hrnjak

· Helped in researching novel air conditioning system for possible future use in cars, airplanes, trains, or other moving vehicles.
· Helped design and physically build dozens of pieces from wood, plastic, and metal for use in testing air conditioning system.
· Helped edit basic in-house software system designed to read from various sensors and apply various parameters to the air conditioning system, such as the temperature of a certain area of the system, or the flow rate of liquid through the system, written in C++.
· Proofread hundreds of pages written by Yang, who is a non-native English speaker.
· Received mention for helping with research in Yang's dissertation, "Performance measurement and visualization on the refrigerant distribution in the vertical manifold of the microchannel tube heat exchange".

PROFESSIONAL EXPERIENCE

Donnelley Financial Solutions   Chicago, IL
Independent Consultant   2017-2020

· Worked on the data science team to help develop an internal document classification tool which automatically tags 8-K, 10-Q, and 10-K SEC filing documents.

· Worked on the engineering team to build and maintain a web-based front-end for the above tool using the Python Flask framework.
· Deployed and maintained multiple applications on the Microsoft Azure cloud environment.

West Monroe Partners
Senior Consultant

Chicago, IL
2013-2017

· Technical skills utilized: SQL, ETL, data modeling, data warehouse design, OLAP cube development, data management, reporting, visualization tools (PowerBI, D3.js, Tableau, Qlikview), Azure integration (IaaS, PaaS), development in C#, JavaScript, and Python
· Promoted two times during 3.5 year tenure.
· Representative Client: R.R. Donnelley & Sons – Co-Architect, Development Lead
    · Led all technical aspects of project, including training three consultants on best practices of development, architecting the solution, developing the solution, server configuration, deployment, and testing.

Dotomi, LLC (Since acquired by Alliance Data)
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.
· Quickly learned and used Ruby on Rails to develop program.

VOLUNTEERING & OUTREACH

FIRST Robotics
Mentor

Minneapolis, MN
2020-Current

· Help two different robotics teams in the Minneapolis area succeed in the FIRST Robotics Competition, a robotics competition requiring high school-aged students to design and build a robot to accomplish various tasks.
· Attend weekly meetings for both teams, ensuring that I build rapport with the students.
· Provide technical knowledge on computer science and robotics to various members of the team, who have different levels of experience with the material.
· Provide general insight on undergrad experiences and help with undergrad applications.

West Monroe Partners
Senior Member - Charity Committee

Chicago, IL
2013-2017

· Helped plan dozens of charity events for WMP, including the largest charity event of the year, the Chicago Cares Serve-a-thon, with a budget of over $2,000.
· Helped WMP reach their goal of "1% of all time charged per year as community service" for three straight years by personally volunteering over 400 hours of time to community service events in the Chicagoland area.
    · Volunteer work included painting Chicago Public Schools, handing out food in soup kitchens & food pantries, mulching/cleaning Chicago parks, building houses with Habitat For Humanity, cleaning the Chicago River, mentoring young students, and various other activities.
· 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

MnDRIVE Graduate Scholar, University of Minnesota   2020, 2021