# Runduo (Melody) Ma

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#### Education

University of Wisconsin-Madison, Madison, WI

Expected Summer 2023

Majors: Computer Science & Piano Performance, BS

Coursework: Artificial Intelligence, Algorithm, Advanced Programming (Java, C++, C), Data Structure, Operating System,

GPA: 3.90/4.00

Compiler, Mobile Application Development, Spring 2022: User Interfaces, Computer Graphics

# **Experience**

Introduction to Artificial Intelligence Peer Mentor • University of Wisconsin – Madison (Jan, 2021 – Present)

Led weekly office hours. Motivated 300+ students on course content and assignments by providing prompt, debugging, and assisting in python-programming questions. Bridged the gap between students and instructors by collecting questions and giving feedbacks between them.

Front-end Developer Intern • Hangzhou Clounix Technology (June, 2021 – Aug, 2021)

- Adapted to a fast-paced work startup and worked in a team of 2 members by learning and applied the knowledge of network and WebDev quickly. Designed 50% of the company's B2B cloud-native software prototypes by xiaopu and Vue. Communicated and collected feedback from the buyers and customers to improve the prototypes.

Computer Science Teaching Assistant • Guangzhou Foreign Language School (Sep. 2018 – June, 2019)

- Mentored over 20 students in AP CS course, and American Computer Science League Programming Competition (ACSL). 5 students ranked as the top 10 team in the ACSL Competition.
- Help students to review assignment. Improvement was seen as 30% of students got 5/5 scores on the 2019 AP exam.

# **Projects**

An Intelligent Robot Navigation System • Stanford Summer Program Aug 2018 • Python

- Integrated a motion planner (in python) with real-time control for a robot, so that it can search the environment and built a real-time map automatically.
- Applied graph algo to calculate the shortest path from a random starting point to ending point based on the real-time map.
- SnapSort MadHacks Carbon Oct 2019 Javascript
- Worked in a team and developed the mobile app that allows users to classify trash and tracks the user's carbon footprint.
- Incorporated Google Vision API and integrated the camera, developed backend on node.js and frontend on React Native, and used MongoDB to store user data.
- Learned JS and designed trash classification algorithm within 2 hours. The correctness of the results is over 95%.

#### WaveWait • TreeHacks Feb 2021

- Developed a real-time social web app to connect people who are doing the same thing in the same place.
- Help the team as a product manager by creating and defining the product. Worked on backend (Google Cloud) and UI design (sketches & Figma).

## **Activities & Involvement**

TreeHacks 2021, Participant • online • Feb 2021

MadHacks Carbon 2019, Participant • Madison, WI, USA • Oct 2019

Lazy-Bones Programming Club, President • Guangzhou Foreign Language School • Fall 2013 - Fall, 2018

- Initiated and coordinated programming club to taught 40+ junior high school students to program in Python and C weekly.
- Collaborated with other members, organized programming-related activities, and designed RPG games together.

Pokebot Artificial Intelligence for Robots, Stanford Pre-College Program • Stanford University • Summer 2018 Coding for Good Club, Member • UW-Madison • Mar 2020 – Mar 2021

- Helped to maintain the club website and updated the user profile page.

### **Honors & Awards**

Wolfram Award Top 15, makeUC Hackathon, 2021

Top 10 in the world in American Computer Science League programming contest, 2018

2019-2020 Dean's List of UW-Madison

2020 UW-Madison Summer Scholarship, Leo and Jean Besozzi Scholarship for Fall 2021

#### Skills

**Skills (ranked by skill level):** Python, Java, C, C++, Linux, Git, WebDev (HTML, CSS, JavaScript), Vue **Others:** Self-motivation, Responsibility, Passion in teaching and sharing, Ability to learn new concepts quickly, Detail-orientation