Jin Pan

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EDUCATION

University of Michigan

B.S.E. in Computer Science

Ann Arbor, Michigan, US 09/2022-05/2024(Expected)

- o **GPA**: 3.75/4.0
- Mathematics related Coursework: Foundations of Computer Science, Category Theory
- Core Coursework: Data Structure & Algorithm, Intro to Computer Organization, Computer Science Pragmatics, Intro to Machine Learning, Database Management Systems, Computer Vision, Extended Reality and Society

Shanghai Jiao Tong University - Joint Institute

 $B.S.E.\ in\ Electrical\ and\ Computer\ Engineering$

Minhang, Shanghai, China 09/2020-08/2024(Expected)

- o **GPA**: 3.50/4.0
- o Mathematics related Coursework: Honors Calculus I-IV, Differential Equation, Discrete Mathematics, Probabilistic Methods in Engineering, Linear Algebra
- Core Coursework: Electronic Circuits, Intro to Signals and Systems, Introduction to Logic Design, Programming and Elementary Data Structures

SKILLS SUMMARY

• Programming Languages: Python, C, C#, C++, MATLAB, SQL, Blueprint, Java, JavaScript

• Languages: TOEFL 105 (Reading: 29, Listening: 27, Speaking: 22, Writing: 27)

• Game Engines: Unity, Unreal Engine 4, Unreal Engine 5

EXPERIENCE AND PROJECTS

Human-AI Lab (HAIL), Prof. Anhong Guo & Prof. Steve Oney

University of Michigan 06/2023-12/2023

Research Assistant of Project: VR Copilot

- Contribution: Conceptualized and developed VRCopilot, a VR platform for crafting 3D layouts. Led the integration of a server-hosted generative AI model to refine user interactions and enhance immersive experiences.
- Toolkit: Employed Unity for development and collaborated with the AI team to utilize generative models for user interaction refinement.
- \circ **Outcome**: Authored the part of Immersive Authoring Environments for a comprehensive paper on VRCopilot, submitted to CHI 2024.

Human Factors Group, Prof. Paul A. Green

Research Assistant of Project: Real-Time and Virtual Driving Simulator

University of Michigan 05/2023-12/2023

- $\circ\,$ Map Construction: A drivable simulation of I-94 from Ann Arbor to the Detroit Airport was created.
- $\circ \ \mathbf{Data} \ \mathbf{Fetch} \text{: } \mathbf{Utilized} \ \mathbf{Overpass} \ \mathbf{Turbo} \ \mathbf{API} \ \mathbf{with} \ \mathbf{Python} \ \mathbf{scripts} \ \mathbf{to} \ \mathbf{extract} \ \mathbf{OSM} \ \mathbf{data} \ \mathbf{of} \ \mathbf{the} \ \mathbf{I-94} \ \mathbf{segment} \ \mathbf{from} \ \mathbf{others}.$
- Deployment: By deploying a car model, users could drive the simulation realistically in CARLA with a steering wheel.

Mini Course: ML Research via Replication, Prof. Sindhu Kutty

University of Michigan 07/2023-08/2023

 $Leader\ of\ Computer\ Vision\ Group$

- o Research: Made reaction notes for paper in the fields of CV, NLP, RL, Recommendation Systems, and AI Fairness.
- Presentation: Presented a detailed report for analyzing two CV papers: ImageNet and Style-based GAN.
- Replication Project: Replicated paper of GIRAFFE from CVPR2021 and modified the dataset with paper of NERF.

Multidisciplinary Design Program (STARX)

Leader of Project about Pneumatic Muscle

University of Michigan 09/2022-04/2023

- Research: Literature review on pneumatically powered exoskeletons, a branch of rehabilitation robotics.
- o Modeling: Using AutoCAD, the desired skeleton was modeled, and a metal prototype with air pocket was produced.
- Testing: Connecting the Arduino board to the Pneumatic Muscles' Controller enabled feedback through algorithm.
- o Planning: Optimizing pneumatic muscle for lighter, more flexible exoskeletons expanded potential application fields.

Michigan AI Safety Initiative (MAISI)

University of Michigan 01/2023-03/2023

AI Safety Researcher

- o Discussion: Attended seminar on how to align AI, discussing specification gaming and reinforcement learning.
- Coursework: Completed UCB's Intro to ML Safety, learning safety concerns and strategies for high-stakes AI settings.
- Hackathon: Engaged in AI governance hackathon for valuable learning in diverse topics and virtual collaboration.

Honors and Awards

• University Honors, University of Michigan	12/2022
• Dean's List, University of Michigan	12/2022
• Student Development Scholarship, Shanghai Jiao Tong University - Joint Institute	11/2021
• Three Good Student Designation, Shanghai Jiao Tong University	10/2021
• Outstanding Management Award, Shanghai Jiao Tong University	10/2021
• 2nd Prize of VEX Robotics Competition, Shanghai Jiao Tong University	11/2020

ACTIVITIES AND LEADERSHIP

Grader for EECS445: Introduction to Machine Learning	University of Michigan
Assisted in grading and guided students on ML concepts and challenges.	09/2023 - 12/2023
Vice President of Student Science & Technology Innovation Association	Shanghai Jiao Tong University
Set up platforms for all fellow students to share their passion for technology.	09/2021-08/2022
Minister of Society Management and Science Popularization Department	Shanghai Jiao Tong University
Managed all the scientific clubs in SJTU by integrating and allocating relative resour	ces. $09/2021-04/2022$
Assistant Class Advisor	Shanghai Jiao Tong University
Provided academic guide and help for the freshman of class 7.	09/2021- $09/2022$
	Joint Institute - Advising Center
Engaged with alums across diverse sectors to facilitate informational lectures.	09/2021- $09/2022$
Organizer of Dali Ecologic & Economic Creative Challenge Camp	Yunnan, China
Field study of all industries in Dali to propose methods to promote rural vitalization	. 05/2021-06/2021
	Managed all the scientific clubs in SJTU by integrating and allocating relative resour Assistant Class Advisor Provided academic guide and help for the freshman of class 7.