# 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. $09/2021-04/2022$
	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
	Grader for EECS445: Introduction to Machine Learning Assisted in grading and guided students on ML concepts and challenges. Vice President of Student Science & Technology Innovation Association Set up platforms for all fellow students to share their passion for technology. Minister of Society Management and Science Popularization Department 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. Consultant of Advising Center Engaged with alums across diverse sectors to facilitate informational lectures. Organizer of Dali Ecologic & Economic Creative Challenge Camp Field study of all industries in Dali to propose methods to promote rural vitalization