

# Ding (Eric) Ding

(971) 348-7909 · ericding@umich.edu · [ericding.github.io/ericding.github.io/](https://ericding.github.io/ericding.github.io/)

## EDUCATION

### University of Michigan, Ann Arbor

Ann Arbor, MI, United States

*B.S., Computer Science, GPA. 4.00, Dean's List, Dual Degree Program*

April 2024

### Shanghai Jiao Tong University (SJTU)

Shanghai, China

*B.S., Electrical and Computer Engineering, GPA. 3.78*

August 2024

### Main Courses Taken

Data Structures and Algorithm, Introduction to Machine Learning, Computer Vision, Computer Science Fundamentals, Computer Organization, Operating System, Embedded System Design, Electronic Circuits, Signals and Systems, Logic Design, Electromagnetics, Quantum Electromagnetics, Introduction to Aerospace Engineering

## SKILLS

**Programming** C, C++, Python, PyTorch, Matlab, R, R Shiny, Mathematica, Elm, Verilog, HTML, CSS, JavaScript,  $\LaTeX$ , Shell, ARM assembly, OpenGL, Multithreading, Object Oriented Programming, Functional Programming

**OS and Development Tools** Linux Ubuntu (running on self-built PC), macOS, Windows, Docker, Git, GDB, Valgrind, Shell, VSCode, STM32CubeIDE, XCode, Icarus Verilog

**Simulation and Modelling** Catia, Matlab, Mathematica, Pspice, Proteus, Vivado

## PROJECT, RESEARCH, AND WORK EXPERIENCE

### Member of AI Safety Fellowship

September 2022 - December 2022

*Michigan AI Safety Initiative, University of Michigan, Ann Arbor*

Ann Arbor, Michigan, United States

- Participated the student-led seminar focused on the problem of aligning advanced AI to follow human values
- Built a Q-learning Reinforcement Learning model in Python to automate a taxi cab in gym playground
- Explored specification gaming and alignment issues in Reinforcement Learning

### Leader of China May Day Mathematical Contest in Modeling Project Team

May 2022

*UM-SJTU Joint Institute, SJTU*

Shanghai, China

- Led a team to build a gray comprehensive evaluation model and a neural network prediction model with Softmax classifier in Python and Matlab, based on a dataset of a city's fire alarm systems (various sensors' false alarm rates)
- Evaluated fire alarm systems of different districts in the city, and predicted the credibility of fire alarm signals
- Our paper won the first prize of 2022 China May Day Mathematical Contest in Modeling

### Research Assistant of "Research on the Combinatorial Optimization Problems in Machine Learning"

#### Project Group

September 2021 - March 2022

*School of Electronic Information and Electrical Engineering, SJTU*

Shanghai, China

- Designed, implemented and analyzed supervised and self-supervised learning algorithms in Python
- Compared two approaches' performances on imbalanced datasets with long-tail distribution, using Convex Analysis

### Member of SJTU Student Racing Team

March 2021 - August 2022

*SJTU Student Racing Team, SJTU*

Shanghai, China

- Built electrical and electronic components and subsystems for formula student racing cars using Catia
- Optimized electrical wiring and ECU design from previous work to build faster and more reliable racing cars
- Won national second prize of 2021 Formula Student Combustion China as a team

## GRANTS AND AWARDS

The Tang Junyuan Scholarship Nominee . . . . . August 2022  
Shanghai Jiao Tong University Pu Yuan Future Talent Program Scholarship . . . . . January 2022  
Shanghai Jiao Tong University Undergraduate Excellent Scholarship . . . . . December 2021  
Second Prize of Shanghai 2021 CUMCM Mathematical Contest in Modeling . . . . . December 2021  
Shanghai Jiao Tong University Merit Student . . . . . November 2021