Dayu Xia

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EDUCATION

Zhejiang University	2022.09 - 2026.06
B.Eng. Mechanical Engineering	*Current GPA: 4.07/4.3, Rank: 6/55*
University of Illinois Urbana-Champaign	2022.09 - 2026.06
B.S. Mechanical Engineering, with a minor in Mathematics (pending)	*Current GPA: 3.744/4.0, Rank: 6/55*

COURSEWORK

Courses: Calculus I, II, & III, Differential Equations, Linear Algebra with Computational Apps., Probability with Engineering Apps., Numerical Analysis, Intro. to Computing (Python & MatLab), Thermo & Quantum Physics, Analog Circuits & Systems

Courses via Linkedin Learning: Discrete Mathematics, C Programming, Applied Machine Learning: Algorithms

SKILLS

Languages: Python, C, LaTeX, SQL, Julia
English: TOEFL: 107, CET6: 604, CET4: 681
Tools: GitHub, Fusion 360, Solidworks, Adobe & Office toolset

ACADEMIC/INDUSTRIAL EXPERIENCE

University of Illinois Urbana-Champaign | *Research Intern, Supervised by Prof. Dusan Stipanovic*   2024.06 –
Research Thesis: Tracking Using GRU Neural Networks via IMC Scheme

- stability and linearization analysis of GRU and LSTM neural networks around equilibrium
- training GRU neural networks using projection method without the reset gate
- tracking signals via IMC scheme on the post-trained model

Zhejiang University | *Research Intern, Supervised by Prof. Meng Zhang*   2023.09 – 2024.04
Research Thesis: Persuasive GPT

- integrate ChatPDF and ChatGPT to construct knowledge embedding between users and LLM
- construct website frame using React and Java script, achieving an interactable purpose to collect conversation data

Tellgen Corporation | *Intern, Supervised by Mr. Xiaofeng Zhang*   2023.07 – 2023.08
Served in the Department of Applied Engineering

- achieve experimental data visualization through package like numpy and matplotlib
- construct classifier through algorithm such as K-Nearest Neighbor and K-Means Clustering to divide and co-analyze molecular meta data and further the infected cases

AWARDS

Participant, **HKUST Summer Camp for Elite Students (Hosted by Department of IEDA)**	2024.07
Silver Metal, **China International College Students' Innovation Competition**	2023.11
Second Prize, **Zhejiang University Student Scholarship**	2023.09
First Prize, **Zhejiang University Student Winter Vacation Social Practice**	2023.05
Honorable Mention, **Mathematical Contest In Modeling**	2023.02
Second Prize, **The Chinese Mathematics Competitions**	2022.11

PROJECTS

Integrated report, "Multi-dimensional Comparison Report Between Chengdu and Hangzhou"	2023.05
Integrated report, "Prediction and Analysis of the Wordle Game"	2023.02