

Xinyi Lu (Curriculum Vitae/Resume)

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EDUCATION

University of Michigan

PhD student at Computer Science Engineering, advised by Xu Wang

Ann Arbor, MI, US

Sep. 2023 – May 2028 (Expected)

University of Michigan

BS in Computer Science Engineering, GPA:3.9/4.0

Ann Arbor, MI, US

Sep. 2021 – May 2023

- Dean's Honor List, University Honors

Shanghai Jiao Tong University

BS in Electrical and Computer Engineering, GPA:3.7/4.0

Shanghai, China

Sep. 2019 – Aug. 2021

- Student Development Scholarship, Undergraduate Outstanding Scholarship

PUBLICATION

- **Xinyi Lu**, Simin Fan, Jessica Houghton, Lu Wang, Xu Wang, "ReadingQuizMaker: A Human-NLP Collaborative System that Supports Instructors to Design High-Quality Reading Quiz Questions", ACM CHI 2023

RESEARCH

ReadingQuizMaker Web App

Research Assistant @ Lifelong Learning Lab [↗](#)

Ann Arbor, MI, US

April 2022 – April 2023

- Implemented the frontend for the web app using JavaScript and CSS, including the sidebar, section jump, and word selection using highlight, etc.
- Improved the backend of the web app using Django and React to support reading and writing contents from database and show the contents on the website.
- Deployed the Web App to AWS and DigitalOcean
- Conducted 13 user studies to test the effectiveness of ReadingQuizMaker with a control condition where the users are offered with auto-generated questions.
- Submitted a paper as the first writer proceeding to CHI2023

Sparking Activities in an Animal Model of Tinnitus

Research Assistant @ Shore Lab [↗](#)

Ann Arbor, MI, US

June 2022 – Dec. 2022

- Built a Neural Network to classify tinnitus animals based on spiketrain data from neurons.
- Experimented in the length of input to Neural Network in order to find the threshold bin size and spiketrain length that contain enough information for prediction

Synthetic Image and Volume Generation

Research Assistant @ Statistic Online Computational Resource (SOCR) [↗](#)

Ann Arbor, MI, US

Jan. 2022 – Dec. 2022

- Built deep learning network based on with UNet and GAN to generate realistic 2D images of brains.
- Extended the 2D UNet model to 3D to train on the 3D MRI image set, and generate synthesis 3D images.

Construction of distributed smart grid simulation platform

Student Researcher @ Shanghai Jiao Tong University

Shanghai, China

April 2021 – Sep. 2021

- Built a distributed simulation platform model with common equipment for teaching purpose.
- Applied LSTM to predict the amount of electricity generated in a wind power plant with two other team members, resulting in more than 90% precision.

RELEVANT CERTIFICATES AND SKILLS

- **Programming language:** C/C++ (7+ years), Python, Java, JavaScript, SQL, L^AT_EX, R, MATLAB, Arduino
- **Framework:** Pytorch, Numpy, TensorFlow, Django, Jinja2, SQLite, Flask, React
- **Application and System:** Linux, Windows, Git, Github, Microsoft Office, Mathematica, Origin, SolidWorks

ACADEMIC PROJECT

Web App Insta485

Course project for *Web Systems*

Jan. 2022 - Feb. 2022

- Designed the website to show posts with likes and comments using HTML and CSS, and SQLite3 for database.
- Implemented server-side dynamic pages using Jinja2 and Flask so that the website will show different contents according to the users' login status, and users can change contents directly using buttons on the page.
- Built client-side dynamic pages using React and REST API to allow for infinite scroll and modification without refreshing the pages. Then deployed it with AWS.

Budget Android Application (Java)

Course project for *Practical Programming in Java*

Nov. 2021 - Dec. 2022

- Wrote an Android application to record and show the expenses with both detail view and list view.
- Implemented file write and file read to keep data saved after the application is closed.
- Designed infinite scroll and input validation check to ensure that the data is reasonable

EXPERIENCE AND ACTIVITY

Instructional Aide for Introduction to Machine Learning

Ann Arbor, MI, US

University of Michigan

Sep. 2022 - Dec. 2022

- Improve discussion materials and projects for the course, making sure they are synchronous with the lecture.
- Hold weekly discussions and office hours for students to review course materials and guide them with sample exercises.
- Collaborated with professor to ensure the lectures go on smoothly and the students have their questions solved during or after class.

Teaching Assistant for Discrete Math

Shanghai, China

Shanghai Jiao Tong University

May 2022 - Aug. 2022

- Help give feedback to the homework and exams of about 100 students.
- Hold weekly discussions and office hours for students to review course contents and sample exercises.

Grader for Foundations of Computer Science

Ann Arbor, MI, US

University of Michigan

Feb. 2022 - April 2022

- Help grade the homework of more than 500 students from Foundations of Computer Science.

Teaching Assistant for Chemistry Lab

Shanghai, China

Shanghai Jiao Tong University

Feb. 2021 - April 2021

- Prepare for the lab and guide 50 students with 5 experiments.
- Make online experiment videos for about 30 International students to help them perceive the course material smoothly even if they are off campus.

Writing Consultant

Shanghai, China

Shanghai Jiao Tong University

Sep. 2020 - Aug. 2021

- Help the students improve their writing skills
- Give suggestions about improving the writings

Leader of Technical Department of Student Union

Shanghai, China

Shanghai Jiao Tong University

June 2020 - Aug. 2021

- Organized mechanical keyboard workshop for 20+ students to design and build their own keyboards.
- Wrote technical articles about programming style and LaTeX introduction, receiving 200+ reads.

Support Education

Yunnan, China

Yunheng Primary School

Dec. 2019 - Jan. 2020

- Help 60 primary school students in mountainary area, where there is no sufficient teachers and teaching materials, with their English learning.
- Shared the technology and opportunities in larger cities to broaden the horizon of the students.

HONORS AND SCHOLARSHIPS

- Finalist, Interdisciplinary Contest In Modeling
- Dean's Honor List, University of Michigan
- University Honors, University of Michigan
- Student Development Scholarship, Shanghai Jiao Tong University
- Undergraduate Outstanding Scholarship, Shanghai Jiao Tong University