Xinchi Shi

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EDUCATION

University of Liverpool (UoL)   **Liverpool, England**
B.S. in Computer Science   *Sep. 2022. – May 2024 (Expected)*

- GPA: **3.97/4.0** | Rank: **Top 1%**
- *Core Courses*: Advanced Artificial Intelligence (98), Intro to Theory of Computation (97), Advanced Object-Oriented C Languages (94), Computer System (93), Complexity of Algorithms (92), Java Programming (91), Database Development (88), Software Engineering (88), Linear Algebra (88)

Xi'an Jiao-tong Liverpool University (XJTLU)   **Suzhou, China**
B.S. in Information and Computing Science   *Sep. 2020 – Jun. 2022*

- GPA: **4.0/4.0** | Rank: **1/295**

RESEARCH EXPERIENCE

OpenCV-Based Eutectic Gallium-Indium (EGaln) Image Processing (Research Assistant)   **Suzhou, China**
Advisor: Dr. Chenguang Liu, Suzhou Municipal Key Lab for New Energy Techniques   *Jun. 2022 – Sep. 2022*

➢ Developed a measurement algorithm based on mouse events in OpenCV that enables researchers to accurately measure the tip diameter of a syringe by manually dragging the mouse.

➢ Constructed a multi-mode system and embedded to Ttinker GUI interface to provide both manual and automatic measurements, with 15 times faster than the original one.

Automatic Covid-19 Fake News Detection (Research Assistant)   **Remote Research**
Advisor: Dr. Di Jin, Computer Science & Artificial Intelligence Lab, MIT   *Jan. 2022 – Apr. 2022*

➢ Designed a novel framework of fake news detection to overcome the low accuracy and robustness of traditional ML approaches.

➢ Improved the accuracy of Covid-19 fake news classification from 85.37% to 93.68% by fine-tuning the pre-trained BERT.

➢ Combined fine-tuning BERT for frozen and unfrozen parameters with CNN and Bidirectional LSTM layers, and achieved SOTA results on the fake news detection task, with an improvement of 8.9% compared with SVM.

PROJECTS

Serendipity: Flask-Based Student Online Social Forum   **Liverpool, England**
Group Project Leader, mentored by Dr. Michele Zito, UoL   *Jan. 2023 – May 2023*

➢ Implemented a full-stack online social forum for students of University of Liverpool to foster communication and enhance their university experience, serving over 200 users simultaneously.

➢ Worked in an agile development mode (Scrum process) and led a team to design more than 50 test cases through using Pytest framework for four main user scenarios. Accomplished permission management, file/image upload, post categories and email sending functions, etc. by using adopted SQLAlchemy toolkit for Object-Relational Mapping.

Humming TACOS: Transcription, AI Composition, and Online Synthesis   **Suzhou, China**
Research Intern, mentored by Dr. Shengchen Li, XJTLU   *Jun. 2022 – Aug. 2022*

➢ Proposed a light-weight neural network that supports polyphonic output for music transcription.

➢ Built an intelligent music generation system which non-professional users can input personalized audio to generate a new piece of music with synthesized audio and the accompany of piano.

AWARDS AND CERTIFICATES

- University of Liverpool 2+2 Excellence Scholarship (**Ranked 1st** in the CS department)   2022-23
- University Academic Excellence Award (Top 2%)   2021-22
- Stanford University Online: Machine Learning (Coursera Course Certificate)   08/12/2021
- DeepLearning.AI: Neural Networks and Deep Learning (Coursera Course Certificate)   25/08/2022

SKILLS

Programming Skills: C/C++, C#, Java, Python, JavaScript, SQL, LaTeX, MATLAB
Libraries: PyTorch, TensorFlow, Pandas, NumPy, Scikit-learn, Huggingface, NLTK, OpenCV
Language Skills: Mandarin (native), English (fluent, all undergraduate courses are delivered in English)