

Yuhan Tan

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Education

Cornell University

Candidate for Master of Information Science

Ithaca, US

08/2023-Present

- **Core Courses:** Cloud Computing; MPS Project; Analysis of Algorithms; Computing for Information Science; Project Management; HCI design; etc.

University of Liverpool

BEng (First Class Hons) in Computer Science and Electronic Engineering

Liverpool, UK

09/2021-07/2023

- **Core Courses:** Electronic Circuits and Systems; Communication Systems; Computer Systems; Signal and Systems; Database Development; Software Engineering; Discrete Mathematics; etc.

Xi'an Jiaotong-Liverpool University

Major in Computer Science and Technology

Suzhou, China

09/2019-07/2021

Research & Project

Microsoft Sponsor: Database Leaderboard Project

09/2023-Present

- Designed and develop an online game score tracker with leaderboards and real-time trend analysis capabilities primarily using SQL database.
- Performed system topology design and database performance optimization.

Using Machine Learning to Analyze 3D Microscopy Images

09/2022-05/2023

- Collected, analyzed, and produced a dataset (31GB) about mouse embryonic stem cells (mESCs).
- Designed and implemented a ML algorithm and achieved **90% accuracy** and **6000%** increase in efficiency and a Qt-based graphical desktop application with features such as multi-threaded analysis and replaceable weights file **for laboratory use in university**.
- Won the **Edgar Walford Marchant Prize**. The idea and achievement (*algorithms, software, dataset*) of this project will be the basis of a series of **research and papers** related to this protein (NF-κB2 (p52)).

Research on the Existing Representative Image Style Transfer Methods

07/2022-09/2022

Group Leader

- **Led the research team** (six people) to experiment the baselines, revise model, and preparation of the paper. Completed team management work and progress advancement.
- **Designed** the improved model and achieved overall **20%** increase in performance.
- Our paper was **accepted** by the *2022 2nd International Conference on Electrical Engineering and Computer Technology (ICEECT2022)*.

Navigation Helmet

02/2022-03/2022

Group Leader

- **Led the project team** to **designed and implemented** an auxiliary navigation helmet to help blind people. Performed device ordering, contacting and team management work.
- **Designed** a multi-sensor fusion algorithm with Kalman Filtering to improve position prediction accuracy by **300%** in low GPS signal condition and calibrated six-axis accelerometer.

Internships

South China Agricultural University

Intern, Modern Educational Technology Center

Guangzhou, China

07/2021-08/2021

- Studied, operated, and maintained campus network facilities, and monitored the network in campus.
- Supported the optimization and adaptation of campus network topology. Studied the structure of the campus network and future upgrades.

Tarena Technology

Software Development Intern

Guangzhou, China

12/2020-01/2021

- Worked as a team and developed an online learning records management system based on the Django framework and followed Agile development paradigm.

Skills

- Software Development Skills: *Python, C++, Java, C, C#, Docker, Django, Qt, MySQL, Linux, Git.*
- Data Science Skills: *R, Spyder, Jupyter, TensorFlow, PyTorch.*
- Tools: *Matlab, Multisim, ARM Keil μVision, Arduino, Raspberry Pi.*