

Tina Yao

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EDUCATION

UCL — *PhD AI-enabled Healthcare Systems CDT*

September 2021 - present

- Projects:
 - Deep Learning Pipeline for Preprocessing and Segmenting Cardiac Magnetic Resonance of Single Ventricle Patients from an Image Registry
 - Image2Flow: Fast Calculation of Pulmonary Artery Flow Fields from 3D Cardiac MRI Using Graph Convolutional Neural Networks
- Oral presentation to present at Society for Cardiovascular Magnetic Resonance 2024
- Paper accepted at Radiology AI in November 2023
- Presented digital poster at International Society for Magnetic Resonance in Medicine 2023
- Oral presentation at CDT conference 2023

UCL — *MRes AI-enabled Healthcare Systems CDT, Distinction (Dean's List)*

September 2020 - September 2021

- Projects:
 - AFFIRM: adverse event predictions in the ICU using time-series electronic health records
 - EyeBERT: developing ophthalmology-specific NLP model with Moorfields Eye Hospital
- Training and evaluating machine learning models on high-performance computing clusters
- Relevant modules: Information Retrieval & Data Mining (Python, 96%), Data Methods for Health Research (MySQL, 96%), Software Development for Health Data Science (Python, 92%)

UCL — *MSci Physics, 1st Class (81%)*

September 2016 - July 2020

- Awarded Brian Duff Memorial Prize for the best 4th-year project in the department
- Relevant modules: Practical Skills and Computing 1 & 2 (Python), Introduction to Programming (Java), Statistical Data Analysis (C++), Developing Scientific Communication

PUBLICATIONS

- Yao, Tina. et al. "Deep Learning Pipeline for Preprocessing and Segmenting Cardiac Magnetic Resonance of Single Ventricle Patients from an Image Registry" Accepted at **Radiology AI** (2023).
- Harker-Kirschneck, Lena, Hafner, Anne, Yao, Tina. et al. "Physical mechanisms of ESCRT-III-driven cell division". **Proceedings of the National Academy of Sciences** 119.1 (2022).

EXPERIENCE

UCL — *Postgraduate Teaching Assistant*

October 2021 - present

- Teaching three MSc health data science courses in Python, machine learning and SQL
- Guest lecturer for Machine Learning in Healthcare course

Nuffield Research Placement — *Project Supervisor*

June 2021

- Created and supervised a health data science research project for a year 12 student

UCL — *Institute for the Physics of Living Systems Summer Internship*

June 2020 - August 2020

- Conducted independent research to model cell division using molecular dynamics software
- Contributed to a paper published in PNAS

TECHNICAL SKILLS

Python (NumPy, SciPy, pandas, matplotlib)

Machine learning (scikit-learn, TensorFlow)

SQL (MySQL, PostgreSQL)

Machine Vision

Graph Neural Networks

Computational Fluid Dynamics

Natural language processing

Linux

AWARDS

Dean's List Award

Brian Duff Memorial Prize

CREST Gold Award

UKMT Intermediate Maths Challenge Gold Award

ONLINE

CERTIFICATIONS

Natural Language Processing with Classification and Vector Spaces (Coursera)

Natural Language Processing with Probabilistic Models (Coursera)

Learn Natural Language Processing Course (Codecademy)

LANGUAGES

English (Native)

Mandarin (Intermediate)