

Hao Xu

High Performance Computing with Data Science postgraduate student at the University of Edinburgh

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ACADEMIC EXPERIENCE

University of Edinburgh, Edinburgh, UK

MSc in High Performance Computing with Data Science

Sept, 2024 - Sept 2025

- Most modules are HPC related: Thread Programming (OpenMP), Message-Passing Programming (MPI), Advanced Message-Passing Programming, Performance Programming (MPI), HPC Architecture, Accelerated Systems: Principles and Practice
- The left modules are Machine Learning related: Fundamental of Data Management, High Performance Data Analytic, Machine Learning and Pattern Recognition, Machine Learning at Scale, Reinforcement Learning

University of Sussex, Brighton, UK

First Honor

BSc in Computer Science & Artificial Intelligence

Sept, 2022 - June 2024

- Most modules are Computer Science and Artificial Intelligence based: Fundamentals of Machine Learning; Computer Visions; Neural Network; Natural Language Engineering; Advanced Natural Language Engineering; Acquired Intelligence & Adaptive Behaviour (Evolutionary algorithms and Genetic algorithms); Knowledge & Reasoning (Search algorithms, Heuristics, Semantic networks, and Bayesian networks); Databases; Program Analysis (Algorithms analysis); Introduction to Computer Security; Human-Computer Interaction
- Left modules are Neuroscience and Linguistics based related to AI: Principles of Neuronal Function & Dysfunction; Language, Mind and Brain

Soochow University, Soochow, China

Grade: 84%

International Bachelor-Sussex Excellence AI Programme at Soochow University

Sept, 2019 - Jun, 2021

- Most modules are Computer Science and Mathematics based: Calculus; Linear Algebra; Probability Theory; Discrete Mathematics; Data Structure; Python Programming; JAVA Programming; Network Programming; Microcomputer Principle & Interface Technology (Microcomputer systems principle and Assembly language programming); Databases; Software Engineering
- Left modules are Artificial Intelligence based: Introduction to Artificial Intelligence; Machine Learning; Computer Visions

EMPLOYMENT HELD

Natural Language Engineering Teaching Assistant | University of Sussex

Oct, 2023 - Dec, 2023

- * Teach second-year undergraduate students the fundamental principles of the module NLE.
- * Teach the Natural Language Engineering labs, take students through the coding problem set
- * Help struggling students solving exercises

Junior Research Associate | University of Sussex

Jul, 2023 - Sept, 2023

- * ML for Cell Classification from Partial Information Supervised by Dr. Ivor Simpson
- * Do segment on cell micrographs, generate complete four-channel cell micrographs and classify the cycle phase
- * Fine-tune CellPose, build and train VAE and CNN classifier in PyTorch

Intern in AI R&D department | Focus Technology Co., Ltd.

Sept, 2021 - Jun, 2022

- * Involve in image data cleaning, image classification, and object detection with Yolo
- * Use image matting to refine the pixels of items edges to make the extracted item sharper
- * Train CLIP models for Ali Tianchi's CVPR 2022 AliProducts Challenge for text-image retrieval

Intern in Data Analysis department | Nanjing Maiyuchuang IT Co., Ltd

Jun, 2021 - Aug, 2021

- * Involve in the development of the opinion analysis system
- * Crawl news with Scrapy and Pre-processing news data
- * Train BERT to implement sentiment classification and text classification functions

SKILLS

- * Programming Languages: Python > C = C++ > Java = PHP
- * Proficiency in machine learning libraries such as Numpy, Pandas, Matplotlib, PyTorch, etc.
- * Proficiency in Linux, SQL, L^AT_EX, Git
- * Knowledge of essential machine learning, computer vision and natural language processing algorithms
- * Knowledge of Computer architecture, parallel computing, GPU acceleration and data management
- * Ability to reproduce deep learning cutting edge literature
- * Ability to use Docker
- * Good foundation in mathematics