CV

Personal Information

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About me:
I am a second-year PhD student (started in December 2023) in the Computer Vision Research Group at the University of Sheffield, UK. I am fortunate to be supervised by Prof. Jungong Han and Dr. Chen Chen. My research focuses on multimodal learning under constrained conditions (e.g., learning with missing modalities, foundation model under limited computational resources, etc). Prior to starting my PhD, I worked as a Machine Learning Engineer for nearly three years.

Education Background

12/2023 - Present **PhD student** in Computer Vision Research Group, University of Sheffield

09/2019 - 10/2020 **MSc** in Informatics *with merit*, University of Edinburgh

- Selected courses: Machine Learning and Pattern Recognition; Natural Language Understanding, Generation, and Machine Translation; Text Technologies for Data Science**.**
- Thesis: Object Classification Using Proprioceptive Force and Proximity Information for Upper Limb Prostheses.

06/2019 **BEng** *(3.53/4.0)* in Opto-electronic Information Science and Engineering,
Huazhong University of Science and Technology (QS #306; ARWU #96; Top-10 Chinese uni.)

- Selected courses: Calculus; Linear Algebra; Probability Theory and Mathematical Statistics; College Physics; Circuit Theory; Analog Electronic Technology; Digital Circuit and Logic Design; Microcontrollers: Principles and Applications; Programming in C; Signal and Linear System.
- Thesis: Kalman Filter-based Tracking Simulation of Space Optical Communication.

Research & Academic Project Experiences

06/2020-03/2021 Research Intern (remote) at Maizie Zhou Lab, Vanderbilt University, US.

- Developed a text mining pipeline to explore gene-phenotype associations in recent Autism related papers. Downstream analysis and validation are done using the output of the pipeline.
- Published a paper as a co-first author on Scientific Reports.

05/2020-08/2020 Master thesis: Object Classification Using Proprioceptive Force and Proximity Information for Upper Limb Prostheses.

- Built a gripper robot and assembled force and proximity sensors on the gripper in the Robotics simulation software CoppeliaSim; Controlled the robot to grasp objects through Python API and collected the sensors' feedback; Did feature engineering and applied machine learning classifiers (Linear, Tree-based, LSTM) to recognize the object type, object rigidness, and gripper gesture; Evaluated the feature importances and classifiers' performance; Provided insights about sensors' type choice and placement.

Working Experience

05/2024 - Present **Huawei, Cambridge, UK**

Research Intern (part-time), Strategic Research Planning

- ➢ Developing research reports on emerging trends in AI.

09/2021 - 06/2023 **AfterShip, Shenzhen, China**

Algorithm engineer; Data Mining Group, Data Department.

- ➢ Develop, test, and launch the deep learning model for the parcel delivery date estimation, see Delivery Date Prediction - AfterShip Features; Other logistic data mining tasks.
- ➢ Skills: Python; PySpark; SQL; Java; Google Cloud Platform; Applied Deep Learning; Data mining.

12/2020 - 06/2021 **Xiaomi Inc, Beijing, China**

Algorithm engineer; Health Algorithms Group, Wearable R & D Center, Department of IoT.

- ➢ Apply signal processing and machine learning methods to develop health-tracking features (e.g. blood pressure estimation, atrial fibrillation detection) on Xiaomi's electronic wearable devices.
- ➢ Skills: Python; C; Feature engineering; Applied Machine Learning

Knowledge & Skills

Programming language: Python, SQL**,** MATLAB, C, Java, R, LabVIEW
Programming frameworks: Numpy, Pandas, Scikit-learn, Tensorflow, PyTorch, PySpark, LightGBM
Topics involved: Machine Learning (ML), Deep Learning (DL), Computer Vision (CV), Natural Language Processing (NLP), time series modeling, Robotics, clinical text mining, wearable computing, tabular data mining, data analysis & visualization, Big Data
Tools: Github, Google Cloud Platform, G-suite, Notion, Overleaf (LaTeX)

Publication

Li, Sijie, et al. "SimMLM: A Simple Framework for Multimodal Learning with Missing Modality" *ICCV 2025.*
Li, Sijie, et al. "Text mining of gene–phenotype associations reveals new phenotypic profiles of autism-associated genes." *Scientific Reports 11.1 (2021): 15269.*

Honors & Awards

12/2023 - 05/2027 Awarded departmental scholarship for PhD students at UK tuition fee rate.
06/2019 Won the title of "Outstanding Graduate" of Huazhong University of Science and Technology
09/2018 Won the scholarship for excellent members of "SIOM Joint Class".
10/2016 Won "the people's scholarship in China".