Zhongyi Zhang

Born	Jan.1997 in Handan, China
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"You can't connect the dots looking forward; you can only connect them looking backward." (Steve Jobs)

PROFESSIONAL CAREER

Research Assistant, Dana-Farber Cancer Institute, Boston, US   Jan. 2020 – Dec. 2021

- Adapted the UNet architecture for 3D liver segmentation at 551 computed tomography (CT) images and achieved an accuracy of 0.97*; Utilized the model for the volumetric assessment of hepatic steatosis at 3,546 CT images and gained a Spearman correlation coefficient over 0.93*
- Trained a deep learning model for body composition segmentation on 442 images and achieved accuracies over 0.90; Tested the model on over 1,000 patients of four external datasets*
- Fine-tuned a deep learning model for facial age estimation based on public datasets; Gratified patient risks according to the discrepancies between facial age estimation and chronological age*
- Developed a deep learning classifier for the mortality prediction at 25,171 CT images. ROC of AUC was over 0.7 *
- Extracted radiomic features of 311 patient CT images using pyradiomics package*
    - *   Publications in preparation

Research Assistant, Imperial College London, London, UK   Oct. 2018 – Sep. 2019

- Combined UNet and Random Walk algorithms for 2D cell image segmentation and vertex detections
- Extracted features of histogram and autoencoder for machine learning-based MRI anomaly predictions
- Tested generative adversarial networks (GANs) for brain MRI lesion detection and segmentation

EDUCATION

Imperial College London, London, UK   Sep. 2018 - Sep. 2019

MRes: Biomedical Research (Data Science), Pass with Merit

Shandong University, Jinan, China   Sep. 2014 - Jun. 2018

B.Eng: Automation, GPA: 89.11 / 100.00

Courses Taken: Data Structure, Object-oriented Programming, Linear Algebra, Probability and Statistics, Calculus

The University of Hong Kong, Hongkong, China   Sep. 2016 - Jan. 2017

Exchange Student

Vrije Universiteit Amsterdam, Amsterdam, Netherlands   Jul. 2018 - Aug. 2018

Summer School Student

KNOWLEDGE, SKILLS

- **Programming:** Proficient in Python; Experienced in C, Matlab
- **Machine Learning:** Scikit-learn, Keras, PyTorch, Deep learning, Computer vision
- **Languages:** Native in Chinese; C1 level in English
- **Driver license:** Class B

EXTRACURRICULAR ACTIVITIES

Internal Fellow at Harvard Chinese Students & Scholars Association (HCSSA), Boston, US   Oct. 2021 - Now

- Bonded HCSSA team by organizing socials and retreats

Class Rep of Biomedical Research Class, London, UK   Oct. 2018 - Sep. 2019

- Liaised with classmates / Attended Management Team Meetings

Student Ambassador of VU Amsterdam Summer School, Amsterdam, Netherlands   Aug. 2018 - Sep. 2019

- Introduced summer school activities to incoming students (remote)

Director of Debating Society of School of Control Science and Engineering, Jinan, China   Sep. 2014 - Mar. 2017

- Organized debating competitions / Taught group members basic debating rules

Volunteer of the 22nd International Congress of Historical Sciences, Jinan, China   23 - 29 Aug. 2015

- Greeted international guest speakers as a receptionist

INTERESTS

- Badminton | Counseling psychology | Karaoke