JINCHEN GE

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EDUCATION

University of Cambridge *October 2020 - July 2021*
Master of Philosophy in Advanced Computer Science Grade: 86/100 (Distinction)

Imperial College London *October 2018 - October 2019*
Master of Science in Advanced Computing Grade: 73/100 (Distinction)

University of Bristol *September 2015 - July 2018*
Bachelor of Science in Computer Science Grade: 74/100 (First-Class Honours)

TECHNICAL STRENGTHS & SKILLS

Programming Languages Python, C/C++, Java, JavaScript, HTML5+CSS, MATLAB
Software & Tools PyTorch, Keras, GPy, MPI, OpenCL, scikit-learn, pandas, Django, Maya, Azure

EXPERIENCE

Graphcore September 2021 -
Graduate AI Engineer

· Implement and optimise machine learning applications using Graphcore's IPUs. (C++, Python, PyTorch, TensorFlow)
· Support machine learning innovators such as research groups or tech start-ups with their state-of-the-art applications.

Suzhou Maxnet Network Security Technology Co., Ltd June 2018 - August 2018
Development Intern

· Designed and implemented deep-learning-based captcha breaking systems for various captcha strategies with different symbols, different interactive patterns, etc., increased the accuracy by around 80%. (Keras, scikit-learn, pandas)
· Actively involved in the localization of the financial information software - Thomson Reuters Eikon, translated more than 5000 professional terms and UI units.

Unis-WDC Storage Co., Ltd June 2017 - August 2017
Python Development Intern

· Worked with other 4 team members on developing and maintaining a RESTful back-end, which enables object-based storage on storage clusters. (Linux, Python, Django, REST API)
· Implemented a flexible update system and designed a key distribution system.

PROJECTS

Zero-Shot Learning for IMU-Based Activity Recognition November 2020 - June 2021

· Proposed a novel video embedding space that could be used instead of the traditional manual-attribute spaces or word embedding spaces as the semantic space for zero-shot human activity recognition. (PyTorch)
· Our results on popular benchmark datasets show that the video embedding space could achieve performance that is comparable to or even better than the much more expensive manual-attribute spaces.

An Intelligent Camera Trapping System November 2020 - January 2021

· Designed an animal recognition mechanism that aims to run on typical camera-trapping hardware. (Keras, TensorFlow)
· Built a simple camera trap (480MHz CPU, 16MB RAM) and deployed the recognition mechanism using model compression techniques such as quantization and knowledge distillation, observed a at least 50% decrease in power consumption when using the camera trap to monitor specific animal species. (MicroPython, C++)

Detail-preserving Denoiser for Monte Carlo Renderings October 2018 - October 2019

· With very limited computational resources and 3D models, rendered and augmented a high-quality dataset which has 4 to 256 times more rendering sample rates than existing datasets. (Python, C++)
· Designed and constructed a denoising system that aims to overcome the over-blurring effect of traditional techniques by integrating novel loss functions including adversarial loss and perception loss. (PyTorch, Azure)

PUBLICATION

· Catherine Tong*, Jinchen Ge* and Nicholas D. Lane. Zero-Shot Learning for IMU-Based Activity Recognition Using Video Embeddings. In IMWUT Vol. 5 (4).

*Equal Contributions

HONORS

· Barry Thomas Scholarship in Computer Science
· Netcraft prize for top 10 students in Computer Science