Shen Zhuoran

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Education

The University of Hong Kong, Hong Kong

Sep. 2015 — Present

Bachelor of Engineering in Computer Science

- CGPA: 3.97/4.30; standing: 1/111; major CGPA: 4.13/4.30.
- 3 years' Dean's Honours Lists. YC Cheng Engineering Scholarship.
- Courses: Computer Vision (A), Multivariable Calculus (A+), Introduction to Linguistics (A+).

University of California, Davis, CA, United States

Sep. 2017 — Dec. 2017

Bachelor's Reciprocity Student in Computer Science

• GPA: 4.00/4.00.

Work Experience

Computer Vision Research Intern at SenseTime, Hong Kong

Jan. 2018 — Present &

Jun. 2017 — Aug. 2017

- Developed an internal PyTorch template that facilitated the team's transition from Caffe.
- Developed a stereo depth estimator based on PSMNet with improved training procedures. Achieved 2x increase over previous SotA on the Scene Flow dataset.
- Proposed factorized attention, an efficient self-attention mechanism applicable in CV and NLP:
 achieved SotA performance on detection, instance segmentation, and stereo depth estimation;
 submitted a first-author paper to CVPR 2019.

Projects

Visual Embedding of Chinese at The University of Hong Kong

Sep. 2018 — Present

May 2018 — Present

- Designing a novel model to improve Chinese embedding accuracy by utilizing visual features.
- Refactored a PyTorch embedding library. Achieved 70x speedup.

beauty-net

• Developed a PyTorch project template. Applied deduplication, modularization, and a consistent code style to improve maintainability, testability, and analyzability.

• Became 2nd most popular PyTorch template on GitHub with 180+ stars and trending for 3 days.

Awards

Second Runner-up in ACM-ICPC Hong Kong PolyU International Invitational 2017

Aug. 2017

First Runner-up in ACM-HK Programming Contest 2017

Jun. 2017

Preprint

Factorized Attention: Self-Attention with Linear Complexities

CVPR 2019

Shen Zhuoran*, Zhang Mingyuan*, Yi Shuai, Yan Junjie, Zhao Haiyu (* Equal contribution)

Skills

- Languages: Mandarin Chinese (native), English (116 in TOEFL).
- Languages: Python, C++, Java, Shell script, Markdown, LaTeX
- Technologies: PyTorch, Caffe, Git, Slurm, Django, Vim, CUDA programming