

Shuyue Jia

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EDUCATION

City University of Hong Kong, HK May 2021 - Present

- M.Phil., Computer Science Major, GPA: 3.50/4.0
- Supervisor: Dr. Shiqi Wang, Research area: Computer Vision
- Selected coursework: Big Data Algorithms and Techniques (A), Machine Learning Algorithms and Applications (B)

Northeast Electric Power University, Jilin, China Sep 2016 - Jun 2020

- B.Eng., Intelligence Science and Technology Major, GPA: 80.26/100
- Supervisor: Prof. Yimin Hou and Dr. Jinglei Lv, Research area: EEG Signals Processing based on DL Methods

University of California, Irvine, CA, USA Jul - Sep 2017

- Summer School, Computer Science, GPA: 4.0/4.0
- Selected coursework: Computer Systems and Architecture (A+), University Writing and Communication (Pass)

RESEARCH

- No-reference Image Quality Assessment via Non-local Modeling.
Shuyue Jia, Baoliang Chen, Dingquan Li, Shiqi Wang.
To be submitted.
- Deep Feature Mining via Attention-based BiLSTM-GCN for Human Motor Imagery Recognition. [Paper][Code]
Yimin Hou, **Shuyue Jia (Corresponding Author)**, Xiangmin Lun, Shu Zhang, Jinglei Lv.
Frontiers in Bioengineering and Biotechnology, 2021. (Published)
- A Novel Approach of Decoding EEG Four-Class Motor Imagery Tasks via Scout ESI and CNN. [Paper] [Code]
Yimin Hou, Lu Zhou, **Shuyue Jia**, and Xiangmin Lun.
Journal of Neural Engineering, 2020; 17(1):016048. (Published)
- GCNs-Net: A Graph Convolutional Neural Network Approach for Decoding Time-resolved EEG Motor Imagery Signals. [Paper] [Spectral GNN Presentation] [Dynamic GNN Presentation] [Code]
Shuyue Jia (Corresponding Author), Yimin Hou, Xiangmin Lun, Shu Zhang, Jinglei Lv.
arXiv preprint arXiv:2006.08924, 2022 (Under Review at IEEE TNNLS).
- Improving Performance: a Collaborative Strategy for the Multi-data Fusion of Electronic Nose and Hyperspectral to Track the Quality Difference of Rice. [Paper]
Yan Shi, Hangcheng Yuan, Chenao Xiong, **Shuyue Jia**, Jingjing Liu, and Hong Men.
Sensors & Actuators: B. Chemical, 2021; 129546. (Published)
- Origin Traceability of Rice based on an Electronic Nose Coupled with a Feature Reduction Strategy. [Paper]
Yan Shi, Xiaofei Jia, Hangcheng Yuan, **Shuyue Jia**, Jingjing Liu, and Hong Men.
Measurement Science and Technology, 2020; 32(2):025107. (Published)
- Attention-based Graph ResNet for Motor Intent Detection from Raw EEG signals. [Paper][Code]
Shuyue Jia (Corresponding Author), Yimin Hou, Yan Shi, and Yang Li.
arXiv preprint arXiv:2007.13484, 2022. (Rejected by MICCAI 2020; To be submitted)

EXPERIENCE

Samsung Research, Beijing **Computer Vision Research Intern** April 2022 - Present

- Working on Depth-aware Video Panoptic Segmentation (DVPS).

City University of Hong Kong, HK **Part-time Research Assistant** Sep 2021 - April 2022

- Investigated the topic of Deep Learning models compression and lightweight, and the deployment on mobile devices.
- Funded by my mentor (Dr. Shiqi Wang) to cover tuition fees and living expenses in HK.

Philips Research, Shanghai **NLP Research Intern** Jul - Oct 2020

- Medical Concept Mapping: three levels \rightarrow BPE and FMM & BMM Algorithms for Sub-words (Syntax-level), Word Vector Cosine Similarity (Semantics-level), and Knowledge Graph (Pragmatics-level).
- Medical NER: compared the performances of different models \rightarrow CRF++, Character-level BiLSTM + CRF, Character-level BiLSTM + Word-level BiLSTM / CNNs + CRF, and deployed the models using Flask and Docker as web apps. Codes are available here and the Docker Images are available on the Docker Hub.
- Dynamic Webs Crawling: learned and crawled 620,000 words from NSTL using Python parallel package threading and other tricks to prevent Anti-reptile. (Mentor: Dr. Shuang Zhou)

Tsinghua University, Beijing **NLP Summer Intern** Jun - Aug 2019

- Natural Language Processing (NLP) Interned at State Key Laboratory of Intelligent Technology and Systems (Prof. Xiaoyan Zhu Team), Tsinghua University, China.
- I was in a team that was responsible for building a salesman training system, which was a piece of insurance dialogue systems. During intern, I led the effort to create a Chinese Chat Title Named Entity Recognition (NER) via the BERT-BiLSTM-CRF model, and then matched the formal name with the recognized title through rules. NER Dataset: 30,676 samples, 96.73% accuracy on 550 samples.
- I also assisted in testing the sales training review system, and integrated salesmans dialogue according to different difficulty levels, in verifying the reliability of the system.

AWARDS

2021 Standard Chartered Hong Kong Marathon, Half Marathon, Placed <i>318 / 6000</i> (01:38:14)	Oct 2021
2019 Interdisciplinary Contest In Modeling, USA [Thesis] <i>Honorable Mention</i>	Apr 2019
2018 Mathematical Contest In Modeling, Jilin, China [Thesis (in Mandarin)] <i>First Prize</i>	Aug 2018
2018 Interdisciplinary Contest In Modeling, USA [Thesis] <i>Successful Participant</i>	Apr 2018
2018 NEEPU Outstanding Student Leader	Oct 2018
Innovation Scholarship of NEEPU <i>Winner</i>	2018/2019
Academic Excellence Scholarship of NEEPU <i>Third Prize</i>	2017/2018/2019/2020
Jilin City International Marathon, Half Marathon, Placed <i>148 / 5000</i> (01:47:36)	Jun 2017
3000-meter Steeplechase (The 45 th NEEPU Games), The 7 th Place	May 2017
The 32 nd Chinese Physics Olympiad, China <i>Third Prize</i>	Oct 2015
2015 National High School Math League, China <i>Second Prize</i>	Sep 2015

PROFESSIONAL SKILLS

Languages: Proficient in Python and Matlab; Familiar with C++/C/Embedded C, R, and JavaScript

Libraries: TensorFlow, PyTorch, Scikit-learn

Other frequently-used tools: Git, SVN, Linux Shell, Vim, Markdown, L^AT_EX, Docker, K8s

English Language: Fluent in English, CET-6 581, CET-4 577, Duolingo 110

Hobby: Hiking, Traveling, Photography, Coding, Research, Marathon, Running