YE Shaojie

No.38 Zheda Road, Zhejiang University, Zhejiang, China
(+86)159-8842-2110 | JaYE@zju.edu.cn

RESEARCH INTEREST

- My research interests lie in the area of **information visualization** and **deep learning**. My current research subject is analyzing data with visualization and human-computer interaction.

EDUCATION

College of Computer Science & Technology, Zhejiang University (ZJU) *Sept. 2016 - Present*
Bachelor of Software Engineering

- Major GPA: **4.0/4.0**; Overall GPA: **3.90/4.0**; Ranking: **3rd/75**
- Supervisor: *Prof. Hongxin Zhang* from CAD&CG lab
- **A+** Core Courses: **O**bject-**O**riented **P**rogramming, Fundamentals of **D**ata **S**tructures, Digital Logic Design, Principles of Computer **System**, Fundamentals of **Software Engineering**, **Linux** Application, **Java** Application design, etc.

Visiting Student | Shenzhen Institutes of Advanced Technology (SIAT) *Nov. 2019 - Present*

- Supervisor: *Prof. Wei Zeng*

Research Assistant | Chinese University of Hong Kong (CUHK) *Sept. 2019 - Nov. 2019*

- Co-advised by *Prof. Pheng Ann Heng and Prof. Chi-Wing Fu Philip*

Research Assistant | University of Notre Dame *Jul. 2019 - Sept. 2019*

- Supervisor: *Prof. Chaoli Wang*

Summer Project | University of British Columbia (UBC) *Jul. 2018 - Aug. 2018*

PUBLICATION

- Li G.*, **Shaojie Y.***, Jun H., Hao Z., Han G., Danny Z. C., Jian-Xun W., Chaoli W., 'SSR-VFD: Spatial Super-Resolution for Vector Field Data Analysis and Visualization' (full paper), **IEEE PacificVis** 2020, Accepted
- Songye H.*, **Shaojie Y.***, Hongxin Z., 'Visual Exploration of Blockchain News in Sentiment Index and Topics Models' (full paper), **C**omputational **V**isual **M**edia Conference 2020, Accepted
  * indicates equal contribution to the papers hereof

RESEARCH EXPERIENCE

SSR-VFD: Spatial Super-Resolution for Vector Field Data Analysis and Visualization *Jul. 2019 - Oct. 2019*

- Tailored SR model for 3D flow data, according to well-designed 2D SR models like SRGAN
- Devised a loss function combining MSE loss and cosine loss to train the SR model, preserving consistency in both the magnitude and the angle of the inference flow
- Compared evaluation results with other model designs, not only in objective metrics but subjective inspection (rendered results); facilitated future study on 3D SR by conveying multiple ablation study, *e.g.* crop size, model depth

Analysis on Visual Analytics Trend of the Blockchain-Centered Public Information *Mar. 2018 - Sep. 2019*

- Built a text library of online blockchain news and manually assign emotional labels (positive or negative) on them
- Developed sentence vectors and passage vectors, using respectively BERT and LSTM; achieved 92% F1 score on the binary classification of passage vectors, supervised by 1k self-labeled data
- Applied visual analytics such as T-SNE and LDA; design the concept of sentiment index to guide the HCI process
- Demonstrate the power of the integrated visualization system by case studies about recent events in the blockchain field, *e.g.* ETH being hacked (2019.5), the release of Libra (2019.6)

Efficient Graph Layout Algorithm for Large-scale Graphs by Dimensionality Reduction *Sept. 2018 - May. 2019*

- Developed CUDA version of the algorithm, and achieved 10 times faster compared to the multithread version
- Found the most compatible SGD method for the layout algorithm
- Added metrics to assess the layout, *e.g.* neighborhood preservation, normalized stress; conducted parameter experiments

SELECTED HONORS & AWARDS

National Scholarship (Top 1%) | National Ministry of Education *2018*
First-Class Scholarship for Outstanding Merit | ZJU *2018*
Third-Prize for 18th 'TuSimple Future' Cup ACM Competition | ZJU *2018*
Honorary Title of Outstanding Student Cadre | ZJU *2017*

PROFICIENCY

Computer Science Proficiency: C/C++, Java, Python, Javascript, CUDA, Web
Standard Test: TOEFL MyBest 107 (R 30, L 29, S 24, W 24), GRE 333 (Verbal 163, Quantitative 170) + AW 3.5