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Education

- **Tsinghua University** Beijing, China
  Bachelor of Engineering in Automation; GPA: 3.51 / 4.0; GPA since junior year: 3.82 / 4.0 Aug. 2016 – July. 2020
  - **Core Courses related to Mathematics:** Linear Algebra (4.0 / 4.0), Introduction to Complex Analysis(4.0 / 4.0), Stochastic Mathematical Methods (4.0 / 4.0), Operations Research(4.0 / 4.0), Calculus A(3.6 / 4.0)
  - **Core Courses related to Computer Science:** Numerical Analysis and Algorithms (4.0 / 4.0), Introduction to Artificial Intelligence (4.0 / 4.0), Fundamental Pattern Recognition(3.6 / 4.0), Data Structure(3.6 / 4.0), Digital Image Processing(3.6 / 4.0)

Publication

- A. Li, **J. Guo**, H. Yang, Y. Chen. DeepObfuscator: Adversarial Training Framework for Privacy-Preserving Image Classification; Conference and Workshop on Neural Information Processing Systems 2019 (Workshop Paper)
- **J. Guo**, R. Zhang, J. Hu, Y. Jiang and X. Pei. Convolutional Trajectory Similarity Model: A Faster Method for Trajectory Similarity Measurement; IEEE Intelligent Transportation Systems Conference 2019 (Oral Paper)
- R. Zhang, **J. Guo**, J. Hu and X. Pei. Deep Trajectory Similarity Model: A Fast Method for Trajectory Similarity Computation; ASCE International Conference on Transportation & Development 2019 (Conference Paper)

Research Experience

- **Duke Center of Computational Evolutionary Intelligence (CEI) Lab** Research Intern
  Advisor: Prof. Yiran Chen, Department of Electrical and Computer Engineering, Duke Univ. July, 2019 - Present
  - Proposed an adversarial training framework called DeepObfuscator for privacy-preserving image classifications; performed by simultaneously defending against both reconstruct attack and private attribute leakage.
  - **The short version of this paper was accepted by the PriML workshop co-located with NeurIPS 2019**; and **the full paper is under review by CVPR 2020.**
- **National CIMS Engineering and Research Center** Undergraduate Researcher
  Advisor: Prof. Gao Huang, Department of Automation, Tsinghua University Sept, 2018 - Present
  - Contributed to the proposal of the PDN (Progressive DenseNet) model which improves feature reuse mechanism for efficient deep learning and was responsible for model visualization and comparative analysis with previous models.
  - Proposed a semi-supervised framework based on meta-learning to achieve highly-accurate data classification. **This work is eyed for a submission to ICML 2020**.
- **Intelligent Transportation System Lab of Tsinghua University** Undergraduate Researcher
  Advisor: Prof. Jianming Hu, Department of Automation, Tsinghua University Sept, 2017 - June, 2019
  - Collected more than 60,000 pieces of POI (point of interest) data via Python web crawler through Baidu API.
  - Proposed DTSM (Deep Trajectory Similarity Model) for use in the neural network to fit the results of the trajectory similarity computed via FastDTW; and achieved much higher efficiency than FastDTW. **This work was accepted by ICTD 2019.**
  - Proposed CTSM (Convolutional Trajectory Similarity Model) which achieved higher accuracy and lower time consumption as well as model parameters as compared to DTSM. **This work was accepted by ITSC 2019.**

Leadership and Activities

- **RoboCup 2019 Humanoid League Contest**
  Group Leader for Robot vision and Rules Sept, 2018 - July 2019
  - Translated RoboCup Rules into a brief Chinese version made available for the entire team.
  - Configured the YOLO-v3 Tiny model on Darknet framework for robust robot visual recognition.
  - **Won the second-place award in AdultSize Technical Challenge and AdultSize Drop-In Challenge** and **secured the third-place award in AdultSize Soccer Competition**.
- **Association of Science and Technology of Automation**
  Member of the Technology Innovation Club Aug, 2017 Aug, 2018
  - Hosted workshops on programming tasks for freshmen during summer and winter breaks, e.g. image processing with MATLAB and Python, web crawler with Python, hardware programming with FPGA and Raspberry Pi.
  - Wrote WeChat push on Python to undergraduates in Tsinghua University from diverse backgrounds.
  - Contributed to the logic design of Freshman AI Contest platform.

Honor and Awards

- **Academic Excellence Scholarship of Tsinghua University** *Nov. 2019*
- **Science and Technology Innovation Excellence Scholarship of Tsinghua University** *Nov. 2019*
- **Learning Progress Scholarship of Tsinghua University** *Nov. 2019*

Programming Skills

- **Languages**: Python, C/C++, MATLAB
- **Tools and Frameworks**: LaTeX, PyTorch, Keras, OpenCV