Jianyu Su

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EDUCATION

University of Virginia	Charlottesville, VA
Ph.D. in Systems & Information Engineering	*Jan. 2017 – May 2021*
University of Virginia	Charlottesville, VA
M.E. in Systems & Information Engineering	*Aug. 2015 – Dec. 2016*

EXPERIENCE

Machine Learning Scientist Intern (Cooperative Automated Driving) Jan. 2021 – May 2021
Toyota InfoTech Labs *Mountain Veiw, CA*
- Building high fidelity highway on-ramp simulation and conduct research on deep learning based cooperative automated driving for mixed traffic
- Communicate my research with my collaborators and supervisor. A first-inventor patent is filed with Toyota

Machine Learning Scientist Intern (Digital Twins) June 2019 – Aug. 2019
Toyota InfoTech Labs *Mountain View, CA*
- Conducted research on automated driving for connected vehicles, leading to a publication. Communicated with principle researchers, as well as the patent office, to extend a patent from the publication
- Developed a $5k$-line Python TensorFlow deep learning repository for vehicle trajectory prediction

SELETED PUBLICATIONS

- **Su, Jianyu**, Stephen Adams, and Peter A. Beling. 2021. "Value-Decomposition Multi-Agent Actor-Critics." Proceedings of the AAAI Conference on Artificial Intelligence 35(13) 11352-60. (Top AI conference)

- **Su, Jianyu**, Peter A. Beling, Rui Guo, and Kyungtae Han. "Graph convolution networks for probabilistic modeling of driving acceleration." In 2020 IEEE 23rd International Conference on Intelligent Transportation Systems (ITSC), pp. 1-8. IEEE, 2020. (Top intelligent transportation conference)

- **Su, Jianyu**, Jing Huang, Stephen Adams, Qing Chang, Peter A. Beling. "Deep Multi-Agent Reinforcement Learning for Multi-Level Preventive Maintenance in Manufacturing Systems" Accepted by journal Expert Systems with Applications (IF 6.95, SCI Computer Science Q1)

- **Su, Jianyu**, Stephen Adams, and Peter A. Beling. "Counterfactual multi-agent reinforcement learning with graph convolution communication." arXiv preprint arXiv:2004.00470 (2020).

- Wang, Alan, **Jianyu Su**, Arsalan Heydarian, Bradford Campbell, and Peter Beling. "Is my sensor sleeping, hibernating, or broken? A data-driven monitoring system for indoor energy harvesting sensors." In Proceedings of the 7th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation, pp. 210-219. 2020.

- Wang, Wenpeng, **Jianyu Su**, Zackary Hicks, and Bradford Campbell. "The Standby Energy of Smart Devices: Problems, Progress, & Potential." In 2020 IEEE/ACM Fifth International Conference on Internet-of-Things Design and Implementation (IoTDI), pp. 164-175. IEEE, 2020.

PATENTS

- **Su, Jianyu**, Rui Guo, Ziran Wang. Cooperative Artificial Intelligent Assisted Driving. US Patent 17/475,306, filed Sep 14, 2021.

- **Su, Jianyu**, Kyungtae Han, Rui Guo and Roger Melen. Systems and Methods for Driving Recommendations. US Patent 16/689,255, filed Nov 20, 2019.

- Arsalan Heydarian, Brad J. Campbell, Peter Beling, Alan Wang and **Jianyu Su**. Data-Driving Monitoring System for Energy Harvesting Sensors and Related Methods Thereof. U.S. Provisional Patent 63/107,204, filed on October 29, 2020.

GRANT

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