SEN WANG

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https://zephyr06.github.io/

EDUCATION

Virginia Polytechnic Institute and State University, Blacksburg, U.S. *Jan 2021 - Present*
Doctor of Philosophy in Electrical Engineering GPA: N/A

Georgia Institute of Technology, Atlanta, U.S. *Aug 2018 - Dec 2020*
Master of Science in Electrical and Computer Engineering GPA: 3.9/4.0

Northeastern University, Shenyang, China *Sept 2014 - June 2018*
Bachelor of Automation, "LangShijun" Automation Experimental Class GPA: 3.99/5 (A=4.5)

RESEARCH

Robot Calligraphy (M.S.Thesis, advisor: Frank Dellaert) *Jan 2019 - Present*

- Formulate the problem as a trajectory optimization problem and define the objective function
- Design three virtual brush models to simulate the behavior of true brushes
- Learn and apply psuedo-spectral methods, factor graph and other nonlinear optimization methods to solve the problem
- Program in C++ and Python to implement the whole calligraphy writing system on real robots

Real-time system and optimization *Jan 2021 - Present*

- Learn and know real-time scheduling algorithms
- Propose the run-time optimization problem for real-time scheduling systems
- Learn and know GPU scheduling systems

Computer Vision Projects

- Serve as Teaching Assistant for CS6476 Computer Vision at Georgia Tech (Fall, 2020)
- Propose one algorithm for fast multi-person **action recognition** based on deep learning (undergraduate thesis, June, 2018)
- Implement a **visual odometry** Visual odometry and SLAM, optimization based on factor graph and sparsity (Fall, 2019)

PUBLICATION

1 **S. Wang** , J. Chen, X. Deng, S. Hutchinson, F. Dellaert, "Robot Calligraphy using Pseudospectral Optimal Controlin Conjunction with a Simulated Brush Model", in IROS 2020

2 **Sen Wang**, Dongsheng Yang, Chuchen Guo,Shengxian Du, Non-intrusive Load Disaggregation Based on Kernel Density Estimation. Asia Conference on Power and Electrical Engineering, in ACPEE, 2017

AWARD

2020 IROS Best Entertainment and Amusement Paper Award Finalist

TECHNICAL STRENGTHS & INTERESTS

Real-time system	CPU/GPU Scheduling and optimization
Robotics	Motion Planning, Control, ROS, **Fetch, Franka**
Computer Vision	Visual Odometry, SLAM, Action Recognition, Deep/Machine Learning
Programming	**C++**, Python, Matlab