

Congcong (Rachel) Jin

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Education

- University of California, Irvine** **09/2019 – 12/2020 (Expected)**
M.S. in Computer Science, Donald Bren School of Information and Computer Sciences
- Rochester Institute of Technology** **09/2018 – 11/2018**
Visiting Student, B. Thomas Golisano College of Computing & Information Sciences
- Xi'an Jiaotong University** **09/2016 – 06/2019**
M.S. in Software Engineering, School of Software (Ranking: 2/95)

Technical Skills

- **Programming Languages:** Java, C/C++, Python, MATLAB, JavaScript and HTML
- **Operating Systems:** Mac, Linux and Windows
- **Deep Learning Framework:** PyTorch

Project Experiences

Customer Relationship Management System

- Team Leader* *04/2014*
- Developed a system to efficiently manage information of personnel, transactions and commodities
 - Techniques employed: Browser/Server development mode, Tomcat as the Web server, Java Database Connectivity (JDBC) to connect to MySQL database, Servlet to respond to user requests, JavaScript and HTML for web page demonstration

Library Information Management System

- Team Leader* *12/2013*
- Implemented a system to manage information of readers, books, book borrowing and users
 - Techniques applied: JavaScript, JQuery, MySQL, Model, View and Controller architecture, Java Database Connectivity and et al.

Research Experiences

- Few-shot Human Action Prediction** **09/2018 – 11/2018**
- Introduced few-shot learning into action prediction to improve the network's generalization
 - Proposed relationship networks to construct a confidence matrix for accurate classification
 - Designed a non-decreasing margin based triplet loss to enforce the model to make early predictions

- Multi-view Point Cloud Registration** **05/2017 – 03/2018**
- Proposed a matrix completion method to reduce the sparsity of the reconstructed matrix
 - Designed a probability function for relative motions to denotes their reliabilities
 - Applied the proposed matrix completion and probability into multi-view registration based on L_1 norm

- Pair-wise Point Cloud Registration** **09/2016 - 04/2017**
- Introduced hard assignment into registration to exclude outliers for registration
 - Designed a probability function to represent the reliabilities of established correspondences
 - Proposed an Iterative Closest Point variant to acquire the rigid transformation between two point clouds

Internship

- Action Recognition and Pose Estimation for Classroom Students**
CVTE Co., Ltd *02/2019 – 05/2019*

- Collected and rinsed classroom data and then cut each student in the video out for classification
- Applied optical flow theory to differentiate the transition between different actions
- Improved existing networks and trained them using the collected data for pose recognition
- Introduced people detection and tracking theories to analyze each student's poses

Publications

- **Congcong Jin**, Jihua Zhu, Yaochen Li and et al. Multi-view Registration Based on Weighted Low Rank and Sparse Matrix Decomposition of Motions. IET Computer Vision, 13 (2019): 376–384.
- Jihua Zhu, **Congcong Jin**, Zutao Jiang and et al. Robust Point Cloud Registration Based on Both Hard and Soft Assignments. Optics & Laser Technology, 110: 202–208.
- Yiqiong Zhou, Siyu Xu, **Congcong Jin**, Ziyi Guo. Multiple Point Sets Registration Based on Expectation Maximization Algorithm. Computers and Electrical Engineering, 70 (2018): 1–11.
- Zutao Jiang, Jihua Zhu, **Congcong Jin**, Siyu Xu and et al. Simultaneously Merging Multi-robot Grid Maps at Different Resolutions. Multimedia Tools and Applications, 2019: 1–20.
- Jihua Zhu, Di Wang, Xiuxiu Bai, Huimin Lu, **Congcong Jin** and Zhongyu Li. Registration of Point Clouds Based on the Ratio of Bidirectional Distances, International Conference on 3D Vision, pp. 102–107.

Awards

- Scholar Exchange Fellowship, *Xi'an Jiaotong University (Top 1%)* 09/2018 – 11/2018
- Shenzhen Stock Exchange Scholarship, *Xi'an Jiaotong University (Top 1%)* 10/2018
- Special Scholarship, *Xi'an Jiaotong University* 10/2018
- Second Prize Scholarship, *Xi'an Jiaotong University* 10/2017
- First Prize Scholarship, *Xi'an Jiaotong University* 10/2016
- Yueqi Sun Outstanding Student Award, *Shandong University of Science and Technology* 10/2014
- Second Prize of National English Contest for College Students, *China* 05/2014
- National Encouragement Scholarship, *China* 2012 – 2013