

Xiaowei Chen

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EDUCATION

Oklahoma State University (OSU)

Ph.D. in Electrical & Computer Engineering. GPA: 4.0/4.0

- Dissertation Topic: Indoor Localization and Wayfinding from Room Layouts

Expected: Jul. 2023

Stillwater, OK, USA

Monroe College

Master of Science in Computer Science.

Aug. 2019

NY, USA

Xi'an Jiaotong University (XJTU)

Bachelor of Engineering in Computer Science & Technology.

Jun. 2009

Xi'an, Shaanxi, China

RESEARCH EXPERIENCE

Indoor Camera Pose Estimation, Research Assistant, OSU

Aug. 2019 – May. 2022

- Proposed a new **Perspective-n-Lines** algorithm to estimate **indoor camera pose** with room layouts and image out corners (**IOCs**).
- Simulated test data and collected real image to evaluate the proposed method.
- Identified and solved all the problems, including equation derivation problem, optimization problem, code logical problem, etc.
- Summarized the whole process and outlined the future work.

Dementia Patient Assistance System, Research Assistant, OSU

Aug. 2019 – Present

- Lead a team to develop an assistance system including backend supporting system, Android App, and Smart Glass App.
- The system mainly includes indoor localization, object detection, indoor navigation, speech recognition, intelligent communication.

Probabilistic Perspective-n-Lines for indoor camera pose estimation, Research Assistant, OSU

Jun. 2022 – Present

- Propose a probabilistic Perspective-n-Lines layer for indoor camera pose estimation by using room layouts and image out corners.

PROFESSIONAL EXPERIENCE

Senior Software Testing Engineer, Zhengzhou Chuwo Travel Service Co., Ltd.

Jan. 2015 – Apr. 2017

- Tested the websites and systems, including requirements checking, test case writing, test environment preparation, unit testing, functional testing, performance testing.
- Systems and websites online, problem analysis and system maintenance.

Senior Software Testing Engineer, Shenzhen Zhongxing Technology Co., Ltd.

Oct. 2012 – Nov. 2014

- Verified the user requiems, test the website, App, system, and API, and the systems and websites online and maintenance.
- Wrote and maintained all the documents, including test cases, system installation and configuration, etc.

Website Testing Manager, Linekong Technology Co., Ltd.

Aug. 2009 – Sep. 2012

- Supervised group members to enact related testing projects and testing cases.
- Set up testing environment, applied different testing methods to conduct system testing.

SKILLS

Programming: Python (PyTorch, TensorFlow), Java, SQL

Language: Mandarin (native), English (fluent)

Software: MATLAB, Visual Studio Code, Android Studio, Jupyter Notebook, Axure RP, LoadRunner

Methodologies: Camera Pose Estimation, Image Processing, Deep Learning, Transfer Learning, Intelligent Algorithm, Data Fusion

SELECTED PUBLICATIONS

- **Chen, X.** and Fan, G., 2022. Egocentric Indoor Localization from Coplanar Two-Line Room Layouts. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (pp. 1549-1559).
- **Chen, X.** and Fan, G., 2021. Egocentric Indoor Localization from Room Layouts and Image Outer Corners. In Proceedings of the IEEE/CVF International Conference on Computer Vision (pp. 3456-3465).

SELECTED HONORS AND AWARDS

- Dr Yarlagadda Grad Fellowship Scholarship 2021
- Leo J. Peters & Josie Mosely Peters Scholarship 2022

COMMUNITY ENGAGEMENT

Reviewer, IEEE International Conference on Multimedia and Expo 2022 | Student Member, IEEE | Member, OSU CLA