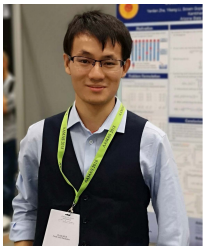

Yantian Zha

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OVERVIEW

PhD student in Computer Science, who is interested in addressing robotics problems that involve integrating planning and perception, via deep learning techniques.

EDUCATION

PhD in Computer Science, Artificial Intelligence 2017-Present
Arizona State University

- Research Advisor: Prof. Subbarao Kamphampati
- Relevant Coursework: CSE 591 Intelligent Assistive Robotics (A); CSE 591 Advances in Robot Learning (A-); CSE 530 Embed Operating Sys Internals (B+); PHY 576 Quantum Theory (B-).
- GPA: 3.51/4.0

MS in Computer Engineering, Computer Systems 2015-2017
Arizona State University

- Research Advisor: Prof. Subbarao Kamphampati
- Relevant Coursework: Human Aware Robotics (A); Statistical Machine Learning (A-).
- GPA: 3.38/4.0

BE in Electronics Engineering, Automation 2010-2014
Southeast University Chengxian College

- Research Advisor: Prof. Xudong Ma
- Relevant Coursework: Advanced Mathmatics (85), Probability & Mathematical Statistics (87), College Physics (91.5), C Programming (88), Embedded Systems (85), Microcomputer: Principles And Application (88), Sensor and Detection Technology (75), Signals and Systems (88), and Fundamentals of Software Technology (84)
- GPA: 83.59/100

RESEARCH PROJECTS

User Modelling for Task and Motion Planning
Yochan Lab, Arizona State University 2018.9-Present
Mentor: Prof. Subbarao Kamphampati and Prof. Siddharth Srivastava

Integrating Vision and Planning
Yochan Lab, Arizona State University 2017.6-Present
Mentor: Prof. Subbarao Kamphampati and Prof. Baoxin Li

- **Recognizing plans by learning embeddings from observed action distributions**
  Proposed and developed the Distr2Vec model to address the problem of learning shallow planning models from distribution sequence inputs
  This work is published in AAMAS, 2018

- **Plan Recognition Driven Attention Modelling for Visual Recognition**
  Proposed and developed the Pixel Dynamics Network for generating plan recognition driven attention maps
  The work is accepted by AAAI Workshop on Plan, Action, and Intention Recognition (PAIR) in 2019.

Development of Service Software for Demonstrating Plan Explicability
Yochan Lab, Arizona State University 2016.9-2016.12
Mentor: Prof. Subbarao Kamphampati and Prof. Yu Zhang

Developed a software for Fetch robot to perform service in an explicable way. The software is used for evaluating our paper Explicability as Minimizing Distance from Expected Behavior. Here is the link to our demo video

Development of Grasping Module for Baxter Robot
Yochan Lab, Arizona State University 2015.9-2016.1
Mentor: Prof. Subbarao Kamphampati and Prof. Yu Zhang

Developed a robotic grasping module for a Baxter Research Robot. The algorithm is based on stable grasping handle prediction, template-based object recognition, and object point cloud segmentation and extraction. Here is a link to my demo video..

Development of Service Software for Mobile Robots (Bachelor Thesis)
Intelligent Robot Lab, Southeast University 2014.2-2014.5
Mentor: Prof. Xudong Ma and Prof. Kun Qian

Developed a service robot system, which includes navigation, object detection, manipulation control, and Unified Robot Description Format (URDF) programming. Applied the system to a turtlebot 2 and a Phantonx Pincher arm.

CONFERENCE AND JOURNAL PAPERS [dblp]

4. Zha, Yantian, Yikang Li, Tianshu Yu, Subbarao Kambhampati and Baoxin Li, "Plan-Recognition-Driven Attention Modeling for Visual Recognition", *Plan, Activity, and Intent Recognition (PAIR) Workshop* , AAAI (2019).

3. Zha, Yantian, Yikang Li, Sriram Gopalakrishnan, Baoxin Li, and Subbarao Kambhampati., "Recognizing plans by learning embeddings from observed action distributions.", *In Proceedings of the 17th International Conference on Autonomous Agents and Multi Agent Systems* **2153-2155**, International Foundation for Autonomous Agents and Multiagent Systems (2018).

2. Zhuo, Hankz Hankui, Zha, Yantian and Kambhampati, Subbarao, "Discovering Underlying Plans Based on Shallow Models", *In Proceedings of ACM Transactions on Intelligent Systems and Technology (TIST)* **finalized journal version to come**, (2019).

1. Kulkarni, Anagha, Zha, Yantian, Chakraborti, Tathagata, Vadlamudi, Satya Gautam, Zhang, Yu and Kambhampati, Subbarao, "Explicability as Minimizing Distance from Expected Behavior", *Explainable AI Planning (XAIP) Workshop* , ICAPS (2018).

INVITED TALKS AT INTERNATIONAL CONFERENCES

2. AAAI 2019 Workshop on Plan, Activity, and Intent Recognition, Honolulu, USA, January 28

1. ICML / IJCAI / AAMAS 2018 Workshop on Planning and Learning (PAL-18) Workshop, stockholm, Sweden, July 15

AWARDS AND CERTIFICATES

- 2007 CERTIFICATE OF ARTS GRADE EXAMINATION OF CHINA (Piano, Ten/Top-level), THE MUSICIANS ASSOCIATION OF JIANGSU PROVINCE, License 200703201-010309
- 2014 Awarded Excellent Undergraduate Student in Southeast University
- 2012 Awarded SEU Second Class Scholarship for Academic Achievement (Top 10%)
- 2011 Awarded SEU First Class Scholarship for Academic Achievement (Top 3%)
- 2011 Course Scholarship in C Programming
- 2011 SEU Merit Student Scholarship

SKILLS

- Expert on Robot Operating System, TensorFlow and PyTorch
- Have experience on using OpenAI-Gym, rllab, and fast-downward
- Have solid knowledge on robotics, neural networks, planning, reinforcement learning, and computer vision