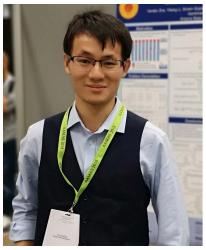


# Yantian Zha

*Yochan Lab*
*Arizona State University*
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## OVERVIEW

PhD student in Computer Science, who is interested in addressing problems that involve integrating planning and perception, via machine 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 based on stable grasping handle prediction and object point cloud extraction, for a Baxter Research Robot

**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