DING YAN

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EDUCATION

State University of New York at Binghamton, USA *Sep 2019 - Present*
Ph.D., Department of Computer Science, Majoring in Computer Science and Technology
Supervised by Associate Prof. Shiqi Zhang
GPA: 3.9/4.0

Chongqing University, China *Sep 2016 - Jun 2019*
Master, College of Computer Science, Majoring in Computer Science and Technology
Supervised by Full Prof. Chao Chen
GPA: 3.03/4.0

Chongqing University, China *Sep 2012 - Jun 2016*
Bachelor, College of Mechanical Engineering, Majoring in Mechatronic Engineering
GPA: 3.23/4.0, Rank: 9/125

RESEARCH GOAL

I aim to create a household robot that frees humans from tedious chores, allowing them to enjoy their leisure time.

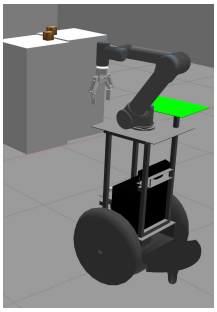
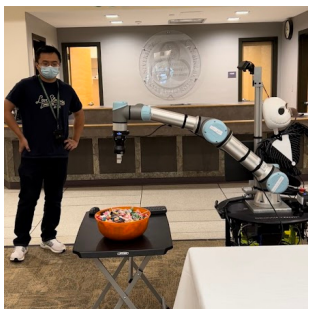
RESEARCH EXPERIENCE

State University of New York at Binghamton *Sep 2019 - Present*
My research focuses on the intersection of planning and learning in complex home environments, using techniques from classical planning, task and motion planning, as well as machine learning.

Ford Motor Company, USA *Dec 2019 - Present*
I collaborate with Ford Motor Company to explore cutting-edge techniques like GPT-3, ChatGPT, and DALL-E in service robots.

Chongqing University *Oct 2015 - Jun 2019*
My research focuses on urban driving and pervasive computing.

MOBILE MANIPULATOR, NAMED "BESTMAN"


The BestMan robot, which comprises a UR5e robotic arm and a Segway base, was set up by me. Additionally, I independently developed and currently maintain an open-source simulation project called BestMan.

Project link: https://yding25.com/BestMan/index.html

PUBLICATIONS WITHIN THE LAST 5 YEARS (ONLY LISTING FIRST AUTHOR)

1. **Yan Ding**, Xiaohan Zhang, Xingyue Zhan, Shiqi Zhang. Learning to Ground Objects for Robot Task and Motion Planning In: IEEE Robotics and Automation Letters (RAL), 2022. (IF 3.74) [Paper] [Project] [Code] [Demo]

2. **Yan Ding**, Xiaohan Zhang, Chris Paxton, Shiqi Zhang. Task and Motion Planning with Large Language Models for Object Rearrangements (Submitted to IROS 2023).

   [Demo]

3. **Yan Ding**, Xiaohan Zhang, Saeid Amiri, Nieqing Cao, Hao Yang, Chad Esselink, Shiqi Zhang. Robot Task Planning and Situation Handling in Open Worlds. In: Autonomous Robots Journal (AURO) (Under Review).

   [Paper] [Project] [Code] [Demo]

4. **Yan Ding**, et al. Task-Motion Planning for Safe and Efficient Urban Driving. 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Pages 2119-2125, Las Vegas, NV, USA, 24 Oct.-24 Jan. 2021.

   [Paper] [Project] [Code] [Demo] [Presentation]

5. **Yan Ding**, Cheng Cui, Xiaohan Zhang, Shiqi Zhang GLAD: Grounded Layered Autonomous Driving for Complex Service Tasks. In: IEEE Robotics and Automation Letters (RAL) (Under Review).

   [Paper] [Project] [Code] [Demo] [Dataset]

6. Chao Chen*, **Yan Ding***, Suiming Guo, Yasha Wang DAVT: an error-bounded vehicle trajectory data representation and compression framework. In: IEEE Transactions on Vehicular Technology (TVT), 2019.

   [Paper]

7. Chao Chen*, **Yan Ding***, Zhu Wang, Junfeng Zhao, Bin Guo, Daqing Zhang VTracer: When online vehicle trajectory compression meets mobile edge computing. In: IEEE Systems Journal, 2019.

   [Paper]

8. Chao Chen*, **Yan Ding***, Xuefeng Xie, Shu Zhang, Zhu Wang, Liang Feng TrajCompressor: An Online Map-matching-based Trajectory Compression Framework Leveraging Vehicle Heading Direction and Change. In: IEEE Transactions on Intelligent Transportation Systems (TITS), 2019.

   [Paper]

9. **Yan Ding**, Chao Chen, Xuefeng Xie, Xuefeng Xie, Zhikai Yang TrajCompressor: An Online Map-matching-based Trajectory Compression Framework Leveraging Vehicle Heading Direction and Change. In: Green, Pervasive, and Cloud Computing: 13th International Conference (GPC), 2018.

   [Paper]

10. Chao Chen*, **Yan Ding***, Xuefeng Xie, Shu Zhang A three-stage online map-matching algorithm by fully using vehicle heading direction. In: Journal of Ambient Intelligence and Humanized Computing, 2018.

    [Paper]

ACADEMIC SERVICES (GOOGLE SCHOLAR CITATIONS $\geq$ 200+)

- Program Committee Member of AAAI (2023)
- Journal Reviewer of IEEE RA-L (2022, 2023)
- Conference Reviewer of IEEE IROS (2021, 2022, 2023) and IEEE IV (2022, 2023)

WORK REPORTED BY NEWS

- [Spectrum News]
- [Linkin]

TECHNICAL SKILLS & ABILITIES

Programming Languages (as seen on Github): Python, ROS, PDDL, ASP, Linux, Matlab

Softwares and Tools: Gazebo, Pybullet, Unity, GPT-3, ChatGPT, CARLA, Blender, LaTeX