

Jian ZHANG



Jian_Zhang

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OVERVIEW

Jian Zhang was born in 1993 in China. She is currently a Ph.D. Candidate with the School of Electrical Engineering and Telecommunications, University of New South Wales (UNSW), Australia. She received her B.Sc. (Magna Cum Laude) degree in Electrical Engineering in 2016 from Kennesaw State University, Georgia, USA. Her current research interests include machine learning and intelligent control, hybrid systems, navigation, and control of mobile robots.

EDUCATION

University of New South Wales, Sydney, Australia

Ph.D. candidate majored in Electrical Engineering

July 2017– present

(Supervisor: Prof. Andrey Savkin)

Casual Academic in Elect Eng & Telecommunications Dept.

Kennesaw State University, Georgia, USA (EA Certified)

Bachelor of Science in Electrical Engineering, GPA: 3.82/4.0

August 2014 – July 2016

North China University of Technology, Beijing, China

Bachelor of Engineering in Material Formation and Control Engineering.

September 2012 – July 2016

HONORS AND AWARDS

- ANZCC 2019 Best Paper Award (First Prize), Summer 2019
- Kennesaw State University, Magna Cum Laude, Spring 2016
- Kennesaw State University, Dean's List in Spring 2016, Spring 2015, and Fall 2014
- Kennesaw State University, President's List, Fall 2015
- North China University of Technology, First place, Athletic Scholarship, 2012-2013
- North China University of Technology, Second place, Social Practice and Innovation Scholarship, 2012-2013
- North China University of Technology, Second place, Moral Scholarship, 2012-2013

SKILLS

- Programming Language: Python, Matlab, V-Rep(coppeliaSim), Linux, Lua, C, markdown, LATEX
- Language: Fluent in both oral and written English and Chinese
- Demonstrated ability to perform innovative and applied research
- Framework: ROS, Keras, NumPy, Pandas

EXPERIENCE

University of New South Wales, Sydney, Australia

Lab Demonstrator, Electrical Engineering Department Demonstrated labs for 3rd-4th year control course (ELEC4632 Computer Control System). Good troubleshooting skill to help students solve their lab design problems Gave lab lecture and answered questions for students. Graded lab reports, invigilated exams and marked assignments.

T2 2018– present

Kennesaw State University, Georgia, USA

Research Assistant, Mechatronics Engineering Department

Fall 2015 – Spring 2016

Collected and Understood Supervisor's requirement.

Evaluated, developed and applied a simulation system based on MATLAB to calculate the time of deorbiting of a small satellite with a sail and an electrodynamics tether.

Research Assistant, Electrical Engineering Department

Fall 2015 – Spring 2016

Designed and developed a self-control robot tracking system through integrating vision and distance sensory information.

Utilized a neural network to fuse the image processing results and sonar measurement.

Worked in a team of four under the supervision of faculty and laboratory.

Teaching Assistant, Chemistry Department

Fall 2015

Worked as a teaching assistant in Chem1211L Principles of Chemistry Lab for two classes.

Supervised lab experiences among students.

Answered questions for students.

Graded lab reports and assignments.

Student Assistant, Mathematics Department

Spring 2015

Graded student homework in Precalculus.

Answered questions for students.

RESEARCH FOCUS & PAPERS

Control system, autonomous mobile robot navigation, machine learning, embedded system.

[1] J. Zhang, "A Collision-Free 3D Path Planning Strategy for Mobile Robots," in To appear in Australian & New Zealand Control Conference, November 28-29, 2019, Auckland, New Zealand, 2019.

[2] J. Zhang, "A Hybrid Reactive Navigation Strategy for a Non-holonomic Mobile Robot in Cluttered Environments," in 2019 Chinese Control Conference (CCC), July 27-30, 2019, Guangzhou, China, 2019, pp. 3839–3844.

[3] J. Zhang, "Path Planning for a Mobile Robot in Unknown Dynamic Environments Using Integrated Environment Representation and Reinforcement Learning," in To appear in Australian & New Zealand Control Conference, November 28-29, 2019, Auckland, New Zealand, 2019.

[4] J. Zhang, "Occlusion-aware UAV Path Planning for Reconnaissance and Surveillance in Complex Environments," in 2019 IEEE International Conference on Robotics and Biomimetics (ROBIO), 2019, pp. 1435–1440.