

NAN WANG

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RESEARCH INTERESTS

Machine Learning
Motion Planning of autonomous vehicle
Motion Control of autonomous vehicle
Data Mining

EDUCATION

09/2011–06/2015 BSc in Automation, **East China University of Science and Technology**, Shanghai, China
09/2015–06/2018 MSc in Control Science and Engineering, **Tongji University**, Shanghai, China

PUBLICATIONS

Paper: **Nan Wang**, Mengxuan Song, Jun Wang, A Flow Field Guided Path Planning Method for Unmanned Ground Vehicle, *56th IEEE Conference on Decision and Control(CDC 2017)*. (Accepted)

Mengxuan Song, **Nan Wang**, Jun Wang, Tim Gordon, A fluid dynamics approach to motion control for rigid autonomous ground vehicles, *25th International Symposium on Dynamics of Vehicles on Roads and Tracks(IAVSD 2017)*. (Accepted)

AWARDS

Personal Awards *Jun. 2015* 2nd Prize Scholarship
Jun. 2015 Outstanding Graduate of Shanghai City
Jun. 2015 Honour Graduate of East China University of Science and Technology
Jun. 2013 Excellent Student
Jun. 2012 Excellent Student Cadre
Jun. 2012 Community Contribution Award Class A

Team Awards *Oct. 2015* A member of Tongji Autonomous Vehicle Group, top 8 in Chinese 7th Intelligent Vehicles Future Challenge(IVFC 2015) , Changshu, Suzhou, China
Aug. 2014 2nd Prize in Siemens Cup Challenge for Industry Automation for Nation-wide College Students, Ma'anshan, Anhui, China
Jan. 2014 3rd Prize in China Undergraduate Mathematical Contest in Modeling

GRADES

Undergraduate: 86/100
Graduate: 88/100(General) 90/100(Overall)

RESEARCH EXPERIENCES

Undergraduate

- Apr. 2014-Jul. 2014* Developed an assistant device that teaches people how to exercise correctly based on Microsoft Kinect.
- May. 2015-Jul. 2015* Developed a pattern recognition method for automated textile industry using SAGA algorithm
- Jan. 2015-Jul. 2015* Developed an improved path planning method based on Theta* algorithm.
Achievement: My diploma thesis obtains the outstanding graduation thesis.

Graduate

- Jul. 2015-Oct. 2015* Develop a GUI to process high-accuracy GPS data
Achievement: Awarded in the *Chinese 7th Intelligent Vehicles Future Challenge(IVFC 2015)* , Changshu, Suzhou, China
- Nov. 2015-Jun. 2016* Propose a path planning method for Advanced Driving Assistant System(ADAS) to park vehicles autonomously based on geometric analysis
Achievement: Developed a demo on the experiment vehicle
- Sep. 2016-Mar. 2017* Proposed a path planning method based on the analogy of fluid flow in static environment
Achievement: submitted two papers to the *56th IEEE Conference on Decision and Control(CDC)* and *25th International Symposium on Dynamics of Vehicles on Roads and Tracks(IAVSD)* respectively
- Mar. 2017- Now* Working on the trajectory planning of autonomous vehicle in dynamic environment using 3D fluid flow field

OTHER ACTIVITIES

Reviewer of *The 2017 American Control Conference*

Reviewer of the *56th IEEE Conference on Decision and Control*

SKILLS

Professional: Matlab, C/C++, C#, \LaTeX , ICEM CFD software package.
Other Skills: CUDA, openCV, HTML5, LINGO.

REFEREES

- Jun Wang** Professor
Department of Control Science & Engineering, **Tongji University**
Email: junwang@tongji.edu.cn
- Timothy Gordon** Professor
Head of School of Engineering in **University of Lincoln**
President of the **International Association for Vehicle System Dynamics (IAVSD)**
former Research Professor in **University of Michigan**
Email: TGordon@lincoln.ac.uk
- Mengxuan Song** Assistant Professor
Department of Control Science & Engineering, **Tongji University**
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