

Hang Gao

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Age: 25 | Gender: Male
Current Status: Postgraduate Student, will graduate in June 25



Research INTEREST

Large language model for autonomous driving, test and validation of vehicle safety, security of artificial intelligence.

EDUCATION

Jilin University 985 211 Double 1st-Class Sep 2017 - Jun 2021
Changchun
Vehicle Engineering, Bachelor Degree Rank 1st in China
Grade Ave: 89.45, final GPA 3.64/4.0 Within top 6%.
National Inspiration Scholarship, Outstanding Student of the College, 2017-2020; Outstanding graduate student of college in 2021;
Guaranteed to Master Degree; Multiple recommending letters from State Key Laboratories.

Jilin University 985 211 Double 1st-Class Sep 2021 - Jun 2025
ChangChun
Control Engineering and Theory, Master School of Artificial Intelligence
One year Gap for Traveling (21-22)
Grade Ave 84.47, GPA 3.24/4.0 Within top 1%
• (IROS 2023) Adversarial Driving Behavior Generation Incorporating Human Risk Cognition for Autonomous Vehicle Evaluation. (Second Author)
• (CAC 2024) Generation of Autonomous Vehicle Testing Trajectories for Cut-In Scenario Integrating Data and Kinematics. (Received, waiting for publishing)
• (Remote Sensing) Enhancing Planning for Autonomous Driving via an Iterative Optimization Framework Incorporating Safety-critical Trajectories Generation. (Second Author, Received, waiting for publishing)
• (ACC 2025) Accelerated Test for Autonomous Vehicle Based on Generative Methods. (Waiting for receiving)

PROJECT EXPERIENCE

MIT xPro Aug 2019 - Oct 2020
Team Leader Online
• Participate in the CV program, get familiar with and use the U-Net architecture. Conduct experiments on the MNIST dataset.
• Organize the team members to complete a thesis and debriefs under the director of a Doctor from MIT.

MIT AD May 2020 - Aug 2021
Team Leader Online
• Basic Experiments on Cifar-10; Using CNN-LSTM architecture, and conduct experiments on self-driving Cityscape dataset for target detection.
• Organize the completion of the experiment and complete a summary report of the experiment.

Experimetal Platform Construction Feb 2023 - Sep 2024
Actual Project Manager Changchun
Responsible for building the sandbox experiment stand from scratch. From the selection of experimental equipment, writing and submitting the proposal, to the construction of the platform. The actual construction, the connection, and maintenance of the hardware, use of the platform software and the ROS signal in the virtual machine, to the writing of the tutorial on the use of experiments in the platform.

RESEARCH EXPERIENCE

Driving Style Analysis Nov 2020 - Jun 2021
Independent Head, Automotive Engineering Jilin University, Changchun
• SQL extracts scenarios from big data; Python does post-processing and data mining to compare and analyze drivers' driving styles using clustering.

Driving trajectory generation Jilin University, Changchun
Student, School of Artificial Intelligence
• Useful information such as velocity and acceleration is extracted from the data and used to train small models. The reasonableness of the generated trajectories is ensured by adding knowledge to the deep model.
• The generated trajectory data is mined to see if the distribution of the deep mined trajectories is consistent with the original dataset and to assess its reasonableness.

Decision making, Planning and Control May 2022 - Sep 2024
Student, School of Artificial Intelligence Jilin University, Changchun
• Upper level route decision -> bottom level action decision; MPC planning trajectory, path; Traditional PID, LQR tracking control, etc.
• The main focus is to give corresponding suggestions and opinions around the automatic driving experimental platform.

Multi-Agent Jun 2022 - Aug 2023
Student, School of Artificial Intelligence Jilin University, Changchun
• Communication problems between multiple intelligences, proof of control synergistic controllability

SKILLS, CERTIFICATIONS & OTHERS

• **Skills:** Familiar with Carsim, Carla, SUMO, Docker; Catia, CAD, Solidworks; Python, C++, Go, MySQL, Markdown. Linux (Ubuntu, Deepin, Arch...) & ROS Simulation (Gazebo,rviz).