

DING QI

(+86) 180-1915-0686 · dq1854080@163.com · Student · GitHub @1PandaDing

SELF INTRODUCTION

I am a student of School of Automotive at Tongji University. I will pursue a phd in Transportation Energy Systems Analysis at 3E Institute of Tsinghua University in 2023!

My research interests include energy systems analysis for the transportation sector, including energy management and climate policy, Low-carbon technology strategies, life cycle analysis, and transportation energy strategies.

EDUCATION BACKGROUND

Tsinghua University, Manage Science and Energnering, *PHD* 2023.9 -TBD

Tongji University, Automobile Engineering, *Bachelor* 2018.9 - 2023.6

Rank 4/182 (Top2%), National Scholarship(×2), National Competition Awards(×3), Provincial Competition Awards(×3), Outstanding Student of Tongji University (×2)

PERSONAL SKILLS

- **Software:** Python, C/C++, MATLAB, Office

INTERN

IMMOTORS,

Strategic Department 2022.11- TBD

- **Consumer Insight**

I participated in the domestic and international new energy vehicle industry development trends and current automotive market insights, assisted in the development of new energy vehicle market focus on competing companies, brand development of special research.

NIO,

Digital Cockpit Department 2022.8- 2022.11

- **Project Management**

During my internship at NIO, I was involved in the project management of the NIO NT2 and NT3 software platforms, driving all departments through a series of processes from requirements elicitation, development scheduling and test flow in an agile and efficient manner.

COMPETITION AWARDS

- National University Mathematics Competition **Shanghai Third Prize**, 2021.12
- University Students' Computer Application Ability Competition **Shanghai Second Prize**, 2022.05
- SAS Data Analysis Competition for Chinese Universities **National First Prize**, 2021.12
- National Student Computer Design Competition **National Third Prize**, 2022.07
- American College Mathematical Modelling Competition **Honorable Mention**, 2021.04
- National University Students Intelligent Car Race **East China Third Prize**, 2021.08

RESEARCH EXPERIENCES

- **Machine Learning-based Path Prediction for Electromagnetic Vehicles**, 2020.03-2021.03

Based on the MobileNet-SSD detection algorithm, an end-to-end autonomous driving model was trained using the camera capture images after canny edge detection as input and the directional control information of the intelligent vehicle as output and deployed to the edge computing board. The design finally achieved stable autonomous driving of the intelligent vehicle even under the conditions of external disturbance and uneven lighting. Using fuzzy PID control, the PWM speed regulation of the intelligent vehicle was completed to maximize the speed of the vehicle while ensuring a smooth ride.

- **Millimeter Wave Radar of Human Posture and Vital Signs Sensing Technology** , 2021.03-2022.03

Based on the IWR6843 millimeter wave radar board, separate measurements of breathing and heartbeat signals were completed by differential filtering and variable modal decomposition to achieve multi-target detection of life features at different angles from the same distance. Based on the camera, the detection algorithm for driver blinking and head-down behavior was programmed, combined with face feature points recognition. Using

python language, we fused two sets of detection algorithms for vital signs and facial posture to build a driver fatigue warning system and tested it in real vehicles.

SOCIAL ACTIVITIES

- **Member of Tu-Smart Car Team**

Responsible for the structural design and programming of smart cars, I have been invited to give scientific lectures on driverless technology and hold extra-curricular activities at Shanghai High School several times.

- **Faculty Innovation and Entrepreneurship Base Officer**

Regularly organizing academic discussions, participating in the recording and presentation of the online course "Automotive Vibration ", and engaging in many voluntary activities.