Huang Zheng

Phone: +86 135-0242-5750
Email: zheng6.6@sjtu.edu.cn

EDUCATION

Shanghai Jiao Tong University, *B.S. in Smart Energy*   2023.9 - 2027.9 (expected)

- GPA：3.96 / 4.30 (rank #1 / 34)
- Related Coursework:
  - Convex Optimization (95), Programming Paradigms and Methods (95)
  - Probability and Statistics (93), Linear Algebra (90)

RESEARCH INTEREST

My research focuses on computer vision and robotics, with a current emphasis on developing techniques for autonomous driving. I am particularly interested in modeling the dynamic 3D world, leveraging my background in deep generative models, representation learning, and multi-modal learning (including language).

PUBLICATIONS

TopoLiDM: Topology-Aware LiDAR Diffusion Models for Interpretable and Realistic LiDAR Point Cloud Generation

Jiuming Liu[*], Zheng Huang[*], Mengmeng Liu, Tianchen Deng, Francesco Nex, Hao Cheng, Hesheng Wang
IROS,2025. [ArXiv:2507.22454]

EXPERIENCE

Shanghai Jiao Tong University - Intelligent Robotics and Machine Vision Lab   2024.7 – 2025.11

Undergraduate Research Intern – Supervisor: *Prof.* He-Sheng Wang

- Build diffusion models for LiDAR point cloud generation
- Experiment on incorporating auto-regressive diffusion pattern into efficient point cloud generation
- Experiment on leveraging scene flow for improved dynamic scenes reconstruction

Machine Learning-Based Prediction of Energy Consumption and Carbon Emissions   2024.2 – 2024.7

Project for the 45th Participating Research Program (PRP), SJTU

- Responsible for data processing and extraction from raw spreadsheets using Python (OpenPyXL) and conducted correlation analysis using SPSS
- Performed Principal Component Analysis (PCA), dimensionality reduction, and data whitening using Python (NumPy)
- Developed a Multi-Layer Perceptron (MLP) using PyTorch for regression prediction of enterprise energy consumption and carbon emissions

HONOR

State Power Investment Corporation (SPIC) Scholarship (Top 10% in Smart Energy Department)   2024.12

Outstanding Undergraduate Scholarship, C Level, SJTU (Top 30%)   2024.10

SKILLS

Programming Languages: Python (PyTorch), C/C++, Java, Assembly language (RISC-V)
Tools: Linux, LaTeX

LANGUAGES

Languages：English (TOEFL 109/120 (Speaking 24/30), CET-6 652/750), Chinese (Native)