Yilin Wang

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Research Interests

- **Drive-by sensor operation** (robotaxi fleets as drive-by sensors)
- **Agentic world models for physical AI and autonomous driving**
- **Cooperative perception and V2X** (vehicle-infrastructure cooperative perception and cooperation)

Education

- **Purdue University** *Aug.2021 - May 2027 (Expected)*
  Doctor of Philosophy in Civil Engineering (Transportation and Infrastructure Systems Engineering) West Lafayette, US
  - Dissertation (tentative title): *A Cooperative Traffic Monitoring System with a Scenario Reconstruction*. Advisor: Dr. Yiheng Feng.
  - Research Area: Connected and Automated Vehicle, Cooperative Perception, Physics-informed Machine Learning, Robotaxi Operation and Control
  - GPA: 3.8/4.00
- **Carnegie Mellon University** *Aug.2019 - Dec.2020*
  Master of Science in Advanced Infrastructure Systems Pittsburgh, US
  - Research advisor: Dr. Pingbo Tang.
  - Area: Smart City, Deep Learning, Natural Language Processing
  - Course: Deep Learning, Reinforcement Learning, Geo-Informatics System
  - GPA: 3.87/4.00
- **Tongji University** *Aug.2015 - Jun.2019*
  Bachelor of Science Shanghai, China
  - Major: Civil Engineering (Area of Geo-technical and Underground Engineering)

Research and Professional Experience

- **Purdue University, Lyles School of Civil and Construction Engineering** *Fall 2021 - Present*
  Graduate Research Assistant, Connected Automated and Resilient Transportation (CART) Lab, supervised by Prof. Yiheng Feng West Lafayette, IN
  - Research area: connected and automated vehicles, cooperative perception, V2X communication.
  - Robotaxi and CAV fleet routing for traffic monitoring, an individual dissertation project (RoboSense) [S.1, C.1, C.2, C.3].
  - Physics-informed and interpretable car-following models [J.2, P.1].
  - Cooperative driving automation projects funded by USDOT, Michigan DOT, and Leidos: lead developer and researcher of the Smart Intersection Project; mentor and developer for the Detroit QLine; CDASim development with Leidos; and a V2X-based connected automated vehicle (see Engineering Projects).
  - Project leader of a cooperative perception project: a CAV safety study funded by NSF [J.1], then an infrastructure-vehicle cooperative perception system funded by the Center for Connected and Automated Transportation (CCAT).
  - Teaching assistant for CCE 361 and guest lecturer for CCE 565 (see Teaching and Mentoring).
- **Inchor(SaferDrive AI)** *Dec.2025 - Jun.2026*
  Simulation Development Engineer Intern Ann Arbor, MI
  - **TeraSim – Naturalistic Driving Behavior**
    * Developed and maintained TeraSim, an open-source city-scale traffic simulation platform for AV safety testing.
    * Led integration of MotionTransformer as the foundation model of NNDE, generating naturalistic driving behavior at city scale alongside the NADE adversarial-scenario module; refactored the behavior-model pipeline from a dual-state design into a stateless prediction pipeline for large-scale inference.

  - Implemented vehicle state synchronization, history tensor construction, and coordinate transformation for large-scale MotionTransformer inference.
  - Implemented a full-stack Driving Foundation Model into product; led the joint project with NVIDIA and the City of San Jose on agent-driven Smart City operation.
  - For that project, led a city-scale urban simulation demo under the NVIDIA Metropolis Blueprint: an integrated "City Operations Agent" and digital twin that perceive, simulate, and optimize traffic operations; designed the full simulation pipeline, including city-scale vehicle injection, dynamic routing, and multi-phase demo orchestration.
  - The TeraSim demo with NVIDIA and the City of San Jose was selected for NVIDIA CEO Jensen Huang's GTC 2026 keynote.
- **AgentSim – Agentic Synthetic Scenario Generation** [Demo]
  - Provide an end-to-end pipeline: from trajectory/text description to safety-critical scenarios with ego camera-view data.
  - Develop an agentic platform with LLMs/VLM agents to collaborate, reconstruct, mutate, and render driving scenarios.
  - LLM/VLM agents take a real logged drive and mutate it into safety-critical variants (a lead car braking hard, a cut-in, a red-light runner, a pedestrian crossing); each variant runs in closed loop, so other road users follow their recorded paths until the mutation reaches them and then react; a video world model renders each variant as front-camera video.
- **Safety Instinct for Physical AI** – independent project, Feb.2026 - Apr.2026; see Research Projects.

- **Carnegie Mellon University** *Jan.2020 - Dec.2020*
  Research Assistant, supervised by Prof. Pingbo Tang Pittsburgh, PA
  - Research on nuclear power plant operations, including workflow extraction and automatic error correction, using natural language processing.

PUBLICATIONS

J=JOURNAL, S=UNDER REVISION, P=IN PREPARATION, C=CONFERENCE; *CORRESPONDING AUTHOR

Journal Articles

[J.1] Hanlin Chen, Vamsi K Bandaru, **Yilin Wang**, Mario A Romero, Andrew Tarko, Yiheng Feng* (2024). Cooperative Perception System for Aiding Connected and Automated Vehicle Navigation and Improving Safety in *Transportation Research Record*, 2678(12), 1498-1510. https://doi.org/10.1177/03611981241252779

[J.2] **Y. Wang** and Y. Feng* (2024). IDM-Follower: A Model-Informed Deep Learning Method for Car-Following Trajectory Prediction in *IEEE Transactions on Intelligent Vehicles*, vol. 9, no. 6, pp. 5014-5020, June 2024, doi: 10.1109/TIV.2024.3367654

[J.3] Ya-Dong Xue, Wei Zhang, **Yi-Lin Wang***, et al. (2023). Serviceability evaluation of highway tunnels based on data mining and machine learning: A case study of continental United States in *Tunnelling and Underground Space Technology*, Volume 142, 2023, 105418, ISSN 0886-7798, https://doi.org/10.1016/j.tust.2023.105418

Manuscripts Under Revision

[S.1] **Yilin Wang**, Yiheng Feng* (2026). RoboSense: Leveraging Robotaxi Fleets as Drive-by Sensors for Urban Traffic Monitoring. Under revision at *Transportation Research: Part C*. Preprint: arXiv:2609.06813.

Manuscripts in Preparation

[P.1] Neural Force: Interpretable Learned Car-Following Response Fields. Manuscript in preparation (co-author).

Peer-Reviewed Conference Papers and Abstracts

[C.1] **Yilin Wang**, Yiheng Feng* (2026). RoboSense: Leveraging Robotaxi Fleets as Drive-by Sensors for Urban Traffic Monitoring. In *INFORMS 2026 Annual Meeting*, Accepted Talk.

[C.2] **Yilin Wang**, Yiheng Feng* (2026). A Cooperative Perception Based Dynamic Vehicle Routing Framework for Urban Traffic Monitoring. In *Transportation Research Board Annual Meeting 2026*, Accepted by Poster Presentation.

[C.3] **Yilin Wang**, Yiheng Feng* (2024). Dynamic Routing of Connected and Automated Vehicles for Improving Network Coverage. In *Transportation Research Board Annual Meeting 2024*, Accepted by Poster Presentation.

PRESENTATIONS

- "RoboSense: Leveraging Robotaxi Fleets as Drive-by Sensors for Urban Traffic Monitoring." INFORMS Annual Meeting, San Francisco, CA. Nov. 2026
- "A Cooperative Perception Based Dynamic Vehicle Routing Framework for Urban Traffic Monitoring." Transportation Research Board Annual Meeting, Washington, DC. Poster. Jan. 2026
- "IDM-Follower: A Model-Informed Deep Learning Method for Car-Following Trajectory Prediction." IEEE Intelligent Vehicles Symposium (IV), Jeju Island, Korea. Research presentation. Jun. 2024
- "Dynamic Routing of Connected and Automated Vehicles for Improving Network Coverage." Transportation Research Board Annual Meeting, Washington, DC. Poster. Jan. 2024

TECHNICAL DEMONSTRATIONS

- **IEEE Intelligent Vehicles Symposium (IV 2026)**, Mcity, Ann Arbor, MI: MMITSS transit signal priority demonstration for symposium attendees and USDOT officials. Jun. 2026
- **ITS America Conference & Expo 2026**, Detroit, MI: MMITSS phase-2 demonstration for Michigan DOT and other state DOT officials. Jun. 2026
- **UMTRI 60th Anniversary Symposium**, Mcity, Ann Arbor, MI: live demonstration of V2X-enabled transit signal priority with a transit bus. Oct. 2025

RESEARCH PROJECTS

- **Cooperative Perception CAV Fleet Operation for Data Collection** *Apr.2023 - Jun.2026*
  Individual Research Project | Funded by NSF and USDOT (CCAT) [GitHub]
  - **Project 1**: Dynamic Routing on Connected and Automated Vehicles for Improving Network Coverage Apr.2023 - Aug.2024
    - **Research Question**: How to model the CAV network coverage and operate routes to improve data collection.
    - **Contribution**:
      1. We formulate the CAV routing problem considering the network coverage as one objective.
      2. We propose a heuristic algorithms with greedy search to solve the multi-objective optimization.
      3. We conduct a simulation experiment in a grid network to verify the feasibility and relations between travel cost and network coverage.
    - **Methodology**: heuristic optimization, SUMO simulation, link-based travel time estimation.
    - **Outcome**: Accepted by Transportation Research Board (TRBAM) 2024 as poster presentation.
  - **Project 2**: RoboSense: Leveraging Robotaxi Fleets as Drive-by Sensors for Urban Traffic Monitoring Sept.2024 - Jun.2026
    - **Research Question**:
      1. A higher granularity of road network representation is needed.
      2. A proper performance metric is needed to evaluate traffic monitoring impact.
      3. There is a dynamic effect between CAV routes decision and partial network observations.
    - **Contribution**:
      1. We apply Cell Transmission Model (CTM) for traffic state prediction and road network representation considering CAV detection maneuver.
      2. We propose a comprehensive MILP formulation considering the performance of traffic monitoring as well as dynamic vehicle routing in one explicit equation.
      3. We conduct a microscopic simulation and evaluations under various scenarios.
    - **Findings**: In SUMO case studies at 2%, 5%, and 10% robotaxi penetration, monitoring-aware routing substantially increased spatiotemporal coverage; with suitable weights, robotaxi travel time also fell; once detours only add distance, the fleet's sensing power drops.
    - **Outcome**: Under revision at Transportation Research: Part C; preprint arXiv:2609.06813; poster at TRB 2026; accepted talk at INFORMS 2026.
- **Modeling Car-Following Behavior with Physics-Informed Neural Network** *Jan.2022 - Present*
  Behavior-level reconstruction of human driving: from physics-constrained prediction to cognitively interpretable response [GitHub]
  - **Overview**: Reconstruct human driving behavior by embedding physical and cognitive structure into neural networks, so that learned behavior models stay accurate, robust, and interpretable – the behavior layer behind sim agents and world models.

- **Project 1**: IDM-Follower: A Model-Informed Deep Learning Method for Car-Following Trajectory Prediction Jan.2022 - Feb.2024
  - **Research Question**: How to integrate an explicit, physics-based car-following model into a learning-based predictor to improve training and performance.
  - **Contribution**:
    1. We introduce a physics-informed neural network (PINN) model that integrates the Intelligent Driver Model (IDM) into a neural trajectory predictor.
    2. The proposed model exhibits robustness against real-time GPS noise.
  - **Methodology**: A customized attention-based VAE trained with a loss that combines physical-law residuals and ground-truth error.
  - **Outcome**: Published in IEEE Transactions on Intelligent Vehicles (first author); research presentation at IEEE-IV 2024, Jeju Island, KR.
- **Project 2**: Neural Force: Interpretable Learned Car-Following Response Fields 2024 - Present
  - **Research Question**: How does a driver combine perceptual cues – spacing, closing speed, and own speed – into one acceleration decision, and can a learned model keep that combination readable instead of hiding it in a black box?
  - **Contribution**:
    1. We propose a cognitively motivated response-field model: acceleration is assembled from signed, weighted gradients of one shared learned scalar, and each term carries a behavioral role (restore spacing, oppose closing, damp speed).
    2. We derive interpretable readouts – operating gap, gap-restoration gain, and closing-opposition gain – that make learned human behavior comparable across datasets.
    3. Across four naturalistic corpora (AD4CHE, highD, LA Highways, I-24 MOTION), we find a shared corrective structure but distinct sensitivities: five of six corpus pairs reverse order between the two gains, ruling out a single "response strength" axis.
  - **Methodology**: Neural scalar potential with state-dependent convex weights; Student-t residual for uncertainty; annealed IDM prior during training.
  - **Outcome**: Manuscript in preparation (co-author).

- **AgentSim: An Agentic Test Engineer for Autonomous-Driving Safety Validation** *Mar.2026 - Present*
  Initiator | Internship | SaferDrive AI(Inchor) [Demo]
  - **Overview**: An end-to-end, LLM/VLM-driven multi-agent platform that generates safety-critical scenarios with trajectories or text input.
  - **Milestone**:
    1. 2026-06: First draft release of AgentSim, utilizing LLMs and VLMs for safety-critical scenario generation.
    2. 2026-10: Public AgentSim demo: 3 real drives, each with 5 generated safety-critical variants rendered as synchronized front-camera video.
- **Safety Instinct for Physical AI: A CBF-Based Safety Cerebellum for Quadruped Robots** *Feb.2026 - Apr.2026*
  Independent Research | Internship | SaferDrive AI(Inchor)
  - **Overview**: An internal exploration of a "safety instinct" for Physical AI – a safety cerebellum for a Boston Dynamics Spot robot, built in NVIDIA Isaac Sim (Omniverse).
  - **Methodology**: Trained a reinforcement learning (RL) waypoint-following controller for Spot, then layered a Control Barrier Function (CBF) safety filter beneath it – the learned policy handles navigation while the CBF layer enforces safety.
  - **Contribution**: Enabled Spot to maintain a dynamic safety boundary around moving obstacles while traveling between waypoints; project conceived and completed independently.
  - **Tech Stack**: NVIDIA Isaac Sim (Omniverse), Reinforcement Learning, Control Barrier Functions
- **Developing A Cooperative Perception System** *Jan.2023 - Jun.2025*
  Project Leader | Funded by NSF and Center for Connected and Automated Transportation (CCAT)
  - **Phase 1**: A Cooperative Perception System for CAV Navigation and Improving Safety *(funded by NSF)*
    - **Objective**: Implement a cooperative perception system to improve road safety.
    - **Contribution**:
      1. We build a cooperative perception system connected by V2X between roadside LiDAR and CAV sensors.
      2. We develop a detection and navigation algorithm on the CAV with a sensor data fusion pipeline.

3. We build and conduct field testing demonstrating the safety benefits of detecting occluded VRUs through the cooperative perception system.

* **Conclusion**: The cooperative perception system helps CAVs plan safer (i.e., higher post-encroachment time) and smoother (i.e., lower deceleration rates) trajectories.
* **Outcome**: Publication [J.1] in Transportation Research Record.

◦ **Phase 2**: An Infrastructure-Vehicle Cooperative Perception System *(funded by CCAT)* Jul.2024 - Jun.2025

* **Objective**: Develop a cooperative perception system including multiple vehicles, infrastructure sensors, and drones.
* **Contribution**: Extract and process multi-sensor data (LiDAR, camera, etc.) into vehicle trajectories; an open-source dataset is being prepared for public release.
* **Methodology**: Multi-sensor fusion of infrastructure sensors, drone-view cameras, and vehicle sensors.

Engineering Projects

• **Cooperative Driving Automation System for Urban Areas** *Sept.2021 - Present*
Multiple Projects, Funded by US-DOT, Michigan DOT, and Leidos Inc.

◦ **Overview**: A vehicle-infrastructure cooperative (V2X) system that connects traffic signals, roadside units, and vehicles, so that intersections can grant signal priority to transit vehicles and guide connected and automated vehicles; built from software through hardware-in-the-loop testing to field deployment, co-simulation, and a test vehicle.

◦ **Part 1: MMITSS Development and Field Deployment**

* **Smart Intersection Project** – USDOT FHWA project "Smart Intersections: Paving the Way for a National CAV Deployment". *Role: Lead Developer and Researcher.* Oct.2023 - Jun.2026

1. Redevelop Multi-Modal Intelligent Traffic Signal System (MMITSS), an open-source connected-vehicle signal priority system with a roadside processor (priority request server and solver, NTCIP signal controller interface) and a vehicle-side processor that forms priority requests from SAE J2735 messages (BSM, MAP, SPaT, SRM, SSM). [GitHub]
2. Built MMITSS deployment configurations for Mcity and for the Ellsworth Road corridor (Braeburn, Stoneschool, and Varsity intersections), integrating commercial roadside units, on-board units, and traffic signal controllers. [GitHub]
3. Set up hardware-in-the-loop testing with the whole SAE J2735 message protocol.
4. Maintain and update versions on road-side and vehicle-side applications, released as public Docker images (over 700 pulls on Docker Hub as of October 2026).
5. Field testing, installation, and data processing for buses and real intersections; transit signal priority has served Route 6 transit buses on the Ellsworth corridor in Ann Arbor since August 2025.
6. Field tests with signal priority on and off; built trip-level datasets that align vehicle-side and roadside messages (BSM, SRM, SSM, SPaT) to evaluate priority performance.

* **Detroit QLine** – transit signal priority and emergency-vehicle preemption for Michigan DOT's Intelligent Woodward Corridor Project (M-1, ATCMTD), funded through WSP. *Role: Mentor and Developer.* Jan.2024 - Jun.2026

1. Implementing the MMITSS system for the QLine in Detroit, MI; updated MMITSS to accommodate the NTCIP 1211 operation protocol. [GitHub]
2. Mentored Ph.D. student Yumeng Bai on continued MMITSS development; Yumeng Bai leads the QLine project.

* **Class demo**: MMITSS is adopted as the class demo of Purdue CCE 565 Traffic Operations and Control.

◦ **Part 2: CDASim Development and MMITSS Integration, with Leidos for USDOT FHWA**

* **Integration CDASim with MMITSS and Performance Analysis** – Leidos project for USDOT FHWA's CARMA cooperative driving automation program (Saxton Transportation Operations Laboratory). *Role: Developer.* Sept.2024 - Apr.2025

1. Integrating MMITSS into CARMA-CARLA-SUMO co-simulation: added the MMITSS roadside and vehicle-side processors to CDASim, FHWA's co-simulation platform, so that signal priority can be tested with simulated connected vehicles. [GitHub]
2. New features on time synchronization, message brokers, and parallel processing to support MMITSS in the CDASim platform. [GitHub]
3. Packaged and tested the message transceivers that link MMITSS to CARMA (Kafka to CARMA Streets on the roadside, ROS 2 to the CARMA Platform on the vehicle side); fixed SSM sending, SRM encoding, and the NTCIP (SNMP) link to the signal controller. [GitHub]
4. Built integration testing and a demo with the released configuration.

5. Worked with Leidos engineers through FHWA's CARMA development process (issue tickets and code reviews); 12 pull requests merged into three FHWA repositories.

◦ **Part 3: Connected Vehicle Development**

∗ **Signal V2X-Based Versatile Connected Autonomous Vehicle** – a full-stack, closed-loop infrastructure-to-AV system that plans the vehicle trajectory in real-world deployment. *Role: Core Team Member.*

1. Roadside: connected the traffic-signal controller to the roadside V2X unit with the SAE J2735 protocol.
2. Vehicle side: developed the signal-aware speed advisory algorithm and deployed it on the vehicle; took part in all internal tests.
3. Participated in the 2024 Mcity 2.0 Challenge (May–August 2024), Mcity, University of Michigan.

Sponsored Research Participation

Principal investigator: Prof. Yiheng Feng (Purdue PI on multi-institution awards). Dates are grant periods.

- **Smart Intersections: Paving the Way for a National CAV Deployment**. USDOT Federal Highway Administration (FHWA), grant 693JJ32150006. Role: lead developer and researcher for connected-vehicle transit signal priority (MMITSS); the grant also supported the IDM-Follower study [J.2]. Oct.2021 - Jun.2026
- **Development of Transit Signal Priority and EV Preemption for the Intelligent Woodward Corridor Project**. WSP, for Michigan DOT's Intelligent Woodward Corridor (M-1, ATCMTD). Role: mentor and developer (MMITSS for the Detroit QLine, NTCIP 1211 extension). Jan.2024 - Jun.2026
- **Integration CDASim with MMITSS and Performance Analysis**. Leidos, for FHWA's cooperative driving automation program. Role: developer (integration, testing, released demo). Sept.2024 - Apr.2025
- **CAREER: Securing Next-Generation Transportation Infrastructure: A Traffic Engineering Perspective**. NSF, CMMI-2339753. Role: graduate researcher; the grant supported the RoboSense study [S.1]. May 2024 - Apr.2029
- **Cost Benefit Analysis of an Infrastructure-Vehicle Cooperative Perception System**. USDOT University Transportation Center, Center for Connected and Automated Transportation (CCAT). Role: project leader (Phase 2 of the cooperative perception project). Jul.2024 - Jun.2025
- **CPS: Medium: Collaborative Research: Transforming Connected and Automated Transportation with Smart Networking, Cooperative Sensing, and Edge Computing**. NSF, Cyber-Physical Systems program. Role: project leader of the cooperative perception safety study (Phase 1) [J.1]. Jun.2021 - May 2024

Software and Data

- **MMITSS for the Michigan deployments**: redeveloped Multi-Modal Intelligent Traffic Signal System for connected-vehicle transit signal priority, with roadside and vehicle-side applications released as public Docker images (over 700 pulls on Docker Hub as of October 2026). GitHub; Docker Hub: roadside, vehicle-side; field data processing: GitHub. 2022 - 2026
- **CDASim–MMITSS integration**: MMITSS integration for FHWA's CARMA-CARLA-SUMO co-simulation (CDASim); 12 merged pull requests in three FHWA Saxton Transportation Operations Laboratory repositories (contributor): cda-mmitss, mmitss, cdasim-config. 2024 - 2025
- **RoboSense**: code for robotaxi fleet routing for traffic monitoring (SUMO, Cell Transmission Model, MILP). GitHub 2023 - 2026
- **IDM-Follower**: physics-informed car-following trajectory predictor. GitHub 2022 - 2024
- **AgentSim public demo**: three real logged drives, each with five generated safety-critical variants rendered as synchronized front-camera video. Demo 2026

Teaching and Mentoring

- **Teaching Assistant – CCE 361: Transportation Engineering (undergraduate)** *Spring 2023, Spring 2024*
  Purdue University, Lyles School of Civil & Construction Engineering West Lafayette, IN
  ◦ Assisted in teaching undergraduate transportation engineering courses covering traffic flow theory, highway design, and transportation planning.
  ◦ Held office hours and recitation sessions and graded homework for a class of 90 students.
- **Guest Lecturer – CCE 565: Traffic Operations and Control** *Fall 2021 - Fall 2026*
  Purdue University, Lyles School of Civil & Construction Engineering West Lafayette, IN
  ◦ Delivered guest lectures on SUMO (Simulation of Urban Mobility) traffic simulation.
  ◦ MMITSS (see Engineering Projects) serves as the course's class demo of a connected-vehicle application.

Mentoring: Yumeng Bai, Ph.D. student, CART Lab, Purdue University – mentored on continued MMITSS development; Yumeng Bai now leads the Detroit QLine project.

Professional Service

Reviewer

- **Transportation Research Part C: Emerging Technologies** – 3 manuscripts *2024, 2026*
- **IEEE Transactions on Intelligent Transportation Systems** – 2 manuscripts
- **IEEE Transactions on Intelligent Vehicles** *2024, 2025*
- **Journal of Intelligent Transportation Systems** – 5 manuscripts *2023-2025*
- **Multimedia Tools and Applications** – 2 manuscripts *2023, 2024*
- **Tunnelling and Underground Space Technology** – 1 manuscript *2026*
- **Virtual Reality** – 1 manuscript *2026*
- **Transportation Research Board (TRB) Annual Meeting** – 7 papers
- **IEEE Intelligent Transportation Systems Conference (ITSC)** *2024*

Committees

- **IEEE-IV24 Workshop on Socially Interactive Autonomous Mobility** – *Committee Member* *2024*

Professional memberships: Transportation Research Board (TRB); IEEE Intelligent Transportation Systems Society; INFORMS.

Honors and Awards

- **Honorable Mention** – Mathematical Contest in Modeling of USA *2018*
- **Silver Award** – China College Students' "Internet+" Innovation and Entrepreneurship Competition (team leader) *2018*

Skills

- **Programming Languages:** Python, C++, MATLAB, JavaScript
- **Data Science & Machine Learning:** PyTorch, CUDA, Hugging Face
- **Simulation & Optimization:** SUMO, CARLA, CARMA, NVIDIA Isaac Sim, Gurobi
- **Cloud Technologies:** AWS, SSH
- **DevOps & Version Control:** Linux, Docker, Conda
- **Cooperation Platform & Project Management:** Jira, Slack, GitHub
- **Other Tools & Technologies:** Microsoft Office, Auto-CAD, ArcGIS
- **Research Skills:** Critical Thinking, Research Talk, Comprehensive Writing, Literature Review

Additional Information

Languages: English (Proficiency), Chinese Mandarin (Native)

References

1. **Yiheng Feng**
   Associate Professor, Civil and Construction Engineering
   Lyles School of Civil and Construction Engineering, Purdue University
   Relationship: Ph.D. Advisor

2. **Henry Liu**
   Bruce D. Greenshields Collegiate Professor of Engineering
   Director, University of Michigan Transportation Research Institute (UMTRI)
   Department of Civil and Environmental Engineering, University of Michigan
   Relationship: Internship Supervisor, Inchor (SaferDrive AI); Ph.D. Committee Member

3. **Ziran Wang**
   Assistant Professor, Civil and Construction Engineering
   Lyles School of Civil and Construction Engineering, Purdue University
   Relationship: Ph.D. Committee Member

Contact details for references available upon request.