CHENMING GE

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EDUCATION

University of Michigan, Ann Arbor — Ann Arbor, USA
B.S.E. in Computer Science — *Aug 2025 - Present*

- **GPA:** 3.88/4.00
- **Selected Coursework: Machine Learning**, Operating Systems, GPU Parallel Programming, Database Management Systems.

Shanghai Jiao Tong University — Shanghai, China
B.Eng. in Mechanical Engineering — *Aug 2023 - Present*

SELECTED RESEARCH PROJECTS

WebEvolve: Robustness Benchmarking for Web Agents — Ann Arbor, MI
Advisor: Prof. Honglak Lee — *Jan 2026 – Present*

- Developed **WebEvolve**, a version-aware benchmark framework that evaluates **MLLM-based web agent** robustness under **natural website version shift**.
- Designed a **knowledge graph based representation pipeline** with component interfaces, producing multi-view state nodes carrying structural, functional, and grounding information.
- Built a **cross-version alignment and structured diff** engine using multi-signal scoring, with a **7-category drift taxonomy** that maps each change to specific agent capability breakdowns.
- Implemented an end-to-end **task maintenance pipeline**: template mining → affected-task detection → retrieval-ranked realization, automatically deciding whether to *reuse*, *refresh*, or *regenerate* tasks when a website version changes.
- Designed a **grounding-aware evaluation protocol** requiring trajectory verification through key evidence nodes, preventing success via hallucinated shortcuts.

Efficient Inference for Embodied Foundation Models — Ann Arbor, MI
Advisor: Dr. Jiachen Liu — *Nov 2025 – Present*

- Profiled **Video Action Models (VAM)** for robotic policy, implementing **cross-attention KV caching** and token compression to accelerate inference in dynamic environments.
- Explored **quantization** (dynamic precision) and speculative decoding on VLA models, optimizing the computational backbone required for real-time agentic decision-making.

Gravitational Effect on Swarming Behavior of Microorganisms — Shanghai, China
Advisor: Prof. Zijie Qu — *Sep 2024 - Aug 2025*

- Trained a **U-Net** model for colony boundary segmentation; diagnosed systematic failure modes, then adopted a **SAM**-based pipeline that achieved reliable automated detection, replacing manual annotation.

Probabilistic Motion Planning for Redundant Robots — Ann Arbor, MI
EECS 465 (Intro to Algorithmic Robotics) course project — *Nov 2025 – Dec 2025*

- Evaluated RRT-Connect and PRM on a 7-DOF Franka Panda; optimized sampling strategies in high-dimensional state spaces, achieving a 75% reduction in planning latency.

SKILLS

Frameworks	PyTorch, Hugging Face, CUDA, Docker, Linux
Languages	Python, C/C++, Java, SQL, LaTeX, Typst