

TIANER ZHOU

✉ tianer.zhou@epfl.ch · ☎ (+86) 187-6847-1044 · in in/tianer-zhou · 🌐 ezhoureal · 📄 ezhoureal.github.io

🎓 EDUCATION

University of Michigan, Ann Arbor, USA

2019 – 2022

Bachelor of Science in Computer Science (Summa Cum Laude)

- **GPA:** 3.917/4.0
- **Selected Coursework:** Machine Learning, Distributed Systems, Operating Systems, Computer Architecture, Linear Algebra, Database, Computer Security, Web Systems.

🔧 AI SYSTEMS & RESEARCH PROJECTS

- **JEPA World Model Research:** Reproduced hierarchical JEPA from HWM_PLDM and optimized its planning / actor loop for JEPA-style world models, achieving up to 10x planning speedup while continuing accuracy-improvement experiments. [\[repo link\]](#)
- **Latent Ensemble World Models:** Trained 3-member leWM ensembles for model-based planning, and trained a separate subgoal planner to guide JEPA, increasing long-horizon task success rate from 5% to 72% in PushT. [\[repo link\]](#)
- **GPT Training / Inference Stack:** Built GPT-style training/inference from scratch: BPE tokenization, Transformer blocks, RoPE, FlashAttention kernel, and distributed KV cache. [\[repo link\]](#)
- **Offline RL Framework:** Implemented SAC, IQL, AWAC, and PPO; IQL reached 230/300 on Ant Maze in 30k steps. [\[repo link\]](#)
- **AI Runtime Contributions:** Merged PRs to NVIDIA Dynamo and vLLM, including KV-router scheduler tests and an out-of-bounds fix; submitted Ironclaw setup/safety fixes and issues. [\[dynamo\]](#) [\[vLLM\]](#) [\[ironclaw\]](#)
- **LLM Agent Tooling:** Developed a HarmonyOS MCP server enabling LLM agents to inspect and control HarmonyOS device UI. [\[repo link\]](#)

👤 WORK EXPERIENCE

Huawei Technologies Co., Ltd., Hangzhou

Aug 2022 – Aug 2026

Graphics Engineer HarmonyOS Graphics Foundation, now deployed on 70M+ devices.

- **Rendering Pipeline & Shader Optimization:** Developed production 2D visual-effect shaders and an asynchronous color-extraction algorithm for adaptive glass effects; built automated parameter-search tooling to tune shader parameters and improve runtime performance up to 10%.
- **Model Fine-tuning and Deployment:** Quantized and deployed a 6B-parameter diffusion model for mobile deployment, generating 2K-resolution images on flagship mobile NPUs in 10 seconds. Curated a style-transfer dataset of 100+ entries and fine-tuned the model with LoRA on 4 V100s using FSDP.

UI Framework Engineer native UI framework of HarmonyOS, supporting the development of 20,000+ apps.

- **Open Source Contribution:** Core contributor to the UI engine repository (C++/TypeScript), ranked Top 1 with 1200+ commits among 1300+ contributors. [\[old repo link\]](#)
- **Performance Optimization:** Built lazy/reusable scroll containers cutting jank by 60%; designed deduplicated image caching; created a ReactNative-SVG renderer 20% faster than the Android solution.

⚙️ TECHNICAL SKILLS

AI Systems: Diffusion / flow matching, LLM, JEPA, Model-based Planning, RL, training / inference parallelism, KV Cache, attention kernels · **Frameworks:** PyTorch, Jax, Lightning · **Programming Languages:** C++, TypeScript, Rust, Go, Python · **Systems:** Distributed Systems, Graphics Runtime, Compiler, xv6 Kernel · **AI Harness:** Codex, Claude Code, Openclaw