

EDUCATION

Master of Science in Computer Science <i>University of Illinois Chicago</i> • GPA: 3.40/4.00 Thesis: Guardrailed hybrid causal discovery for Alzheimer’s biomarkers • Coursework: Machine Learning in Production (CS 544), Advanced Concurrent Computing Systems (CS 554), Reinforcement Learning (CS 594), Socially Responsible AI (CS 517)	Expected May 2027 <i>Chicago, IL</i>
Bachelor of Engineering in Computer Engineering <i>Savitribai Phule Pune University</i> • GPA: 3.50/4.00	June 2024 <i>Pune, India</i>

EXPERIENCE

Graduate Research Assistant — Agentic AI <i>University of Illinois Chicago Prof. Lu Cheng</i> • Built a guardrailed hybrid causal discovery pipeline for Alzheimer’s biomarkers, combining FCI over NACC clinical data with a LangGraph literature agent restricted to edges the statistical layer left undetermined. • Designed a swap test that proved the LLM direction measure was reading argument order, not evidence: 5 of 5 pairs asserted both directions confidently depending only on which node was named first. • First-author paper submitted to IEEE BigData 2026.	May 2026 – Present
Software Engineering Intern — KNOWN (Cyclical Inc.) <i>Chicago, IL</i> • Built the entire Android platform from scratch via Capacitor and shipped the company’s first Play Store and TestFlight releases. • Migrated authentication to SSO-first onboarding (Google, Apple, email OTP) and root-caused a silent data-loss bug that unit tests and source review had both missed. • Built iOS home screen widgets in SwiftUI and led the home screen redesign from Figma specs.	June 2026 – Aug 2026
Application Developer — IBM <i>Bangalore, India</i> • Developed enterprise COBOL, CICS, DB2, and z/OS applications for finance-sector clients, reducing issue resolution time by 30% and improving transaction throughput by 20% across L2 and L3 mainframe support tracks.	Aug 2024 – Apr 2025

PROJECTS

AI Police: Auditing Coding Agent Self-Reports <i>Python, Docker, Flask, GLM-5.3, pytest</i> • Built a harness where a coding agent fixes seeded bugs in a Docker sandbox with every tool call traced and hidden tests grading the result, after audits caught agents recovering the tests from git history. • Across ~100 labeled reports: extract-then-verify caught misreporting at F1 0.964 against 0.719 for a judge reading the report alone. The agent also assumes code is broken, flagging a bug in 47 of 96 clean reviews.	Live Demo GitHub
Entropy-Based Selective Step Verification with Process Reward Models <i>Python, PyTorch, Hugging Face, Math-Shepherd PRM, Gemini 2.5, GSM8K</i> • Cut LLM verification compute 51–58% by gating which reasoning steps reach a verifier using token-level entropy, across three SLMs on GSM8K and a novel options trading dataset. • Entropy predicted correctness at AUC-ROC 0.64–0.68, matching a Gemini judge at zero cost. Also reported where it fails: random beat entropy on 2 of 3 models, and models went overconfident out of domain.	GitHub
UrbanScale: RL-Based Delivery Network Optimization <i>Python, PyTorch, MaskablePPO, OpenAI Gym, OSMnx</i> • Designed the RL environment, C2 reward model, and MaskablePPO pipeline for warehouse placement, reaching >0.95 on-time delivery and beating greedy by ~30% under demand spikes. • Extended to real Chicago road networks via OSMnx, holding 0.955 OTD in-zone and >0.90 zero-shot in unseen neighborhoods.	GitHub

SKILLS

AI Engineering	LangGraph, RAG, Agent Orchestration, Evaluation & Benchmarking, Prompt Design, Vector Databases, LLM APIs (Claude, Gemini, GLM, Mistral, Llama)
Machine Learning	PyTorch, Hugging Face Transformers, Reinforcement Learning (MaskablePPO), NLP, Causal Inference, Uncertainty Quantification
Backend & Infra	Python, FastAPI, Node.js, REST APIs, PostgreSQL, Supabase, Redis, Cloudflare Workers, Docker, AWS, SLURM/HPC
Languages & Tools	Python, TypeScript, JavaScript, SQL, C++, COBOL React, Next.js, Capacitor, Git, CI/CD, Claude Code

RECOGNITION

- NVIDIA Spark Hack, 1 of 30 nationally (UrbanScale) | 2nd Place, Tenacity AI Founder Tech Challenge, UIC | Best Project, TRAE & Z.ai @ UChicago | Finalist, Uncommon Hacks @ UChicago