

Erik Eremenko

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PROFILE

Co-founder of PolySimulator who builds and runs production software with AI coding agents. Working student in applied AI at ING Deutschland and Information Systems (Wirtschaftsinformatik) student at TUM.

EXPERIENCE

-  **PolySimulator** 11/2025 – present
Co-founder Munich
 - Built a paper-trading simulator, trading API, and order-book data platform for Polymarket with my co-founder; 7,000+ registered accounts
 - Since May 2026 nearly all code is written by AI coding agents I orchestrate (Claude Code, Codex). Designed the controls: sessions with fixed roles, a shared memory, AI review before merging on most code changes, alerts routed into the sessions, secret redaction, and human approval for production releases
 - 4,400+ pull requests merged into PolySimulator's main repository by the two founders, 2,100+ of them from my account (Nov 2025 – Oct 2026). One in four merged changes needed a follow-up fix within 48 hours (sample of 553), and review time became the bottleneck
 - Moved production from the US to London in October 2026: four days from decision to cutover, 11 min 22 s of website maintenance, 7,590 user records and 7,867 login identities copied with matching row counts and checksums
 - Real-time order-book recorder: 8 processes holding about 1,900 WebSocket connections, about 6 billion order-book rows a day, around 2 TB of new data a week (since 07/2026)
 - Technologies: Python, FastAPI, TypeScript, Next.js, PostgreSQL, Redis, WebSockets, Docker, Cloudflare (R2, Workers), Grafana, Prometheus, Loki
- **ING Deutschland** 07/2026 – 12/2026
Working Student, AI Workplace Assistance, COO Digital Office
 - Applied AI and automation for teams across the bank, including internal software built with AI coding agents

EDUCATION

- **Technische Universität München** since 10/2026
B.Sc. Wirtschaftsinformatik (Information Systems)
- **Technische Universität München** 10/2023 – 10/2026
B.Sc. Informatik (Computer Science), 6 semesters
- **Königin-Luise-Gymnasium Erfurt** 08/2015 – 06/2023
Abitur (German university entrance qualification), final grade: 1.2

PROJECTS, HACKATHONS & SEMINAR

-  **Molecular Simulation Lab Course (TUM)** 10/2025 – 02/2026
 - Implemented a molecular dynamics simulator in a team (Lennard-Jones potential, linked-cell algorithm); C++, OpenMP, CMake
-  **Seminar: Online Machine Learning (TUM)** WS 2025/26
Seminar paper on online learning algorithms for time-series forecasting | co-authored with Sam Muller
 - Compared online SNARIMAX, Ternary Classifier, and batch ARIMA on S&P 500 data (River, Python); regret minimization
-  **HackaTUM – IMC Trading Challenge** 11/2025
 - Built a trading bot with exchange API integration, automated order logic, and an ensemble model for price prediction (Python)
-  **Robo.Innovate Hackathon (TUM Venture Labs)** 03/2025
 - BMW Team A: on-premise setup, training, and fine-tuning of deep learning models via imitation learning (LeRobot) 

SKILLS

- **AI Engineering:** Claude Code, Codex CLI, multi-agent orchestration, agent memory and context design, MCP
- **Software:** Python (FastAPI), TypeScript, Next.js, C++, C, Java, OCaml, SQL, PostgreSQL, Redis, REST APIs, WebSockets
- **Infra & Operations:** Docker, GitHub Actions, Linux, Cloudflare (R2, Workers), AWS, Grafana, Prometheus, Loki, database migration, incident analysis
- **Data:** real-time capture pipelines, object-storage datalakes, pandas, NumPy, Matplotlib, HPC (LRZ CoolMUC4)
- **Languages:** German (native), Russian (native), English (C1), French (DELF B1)

CERTIFICATES

- **Hasso Plattner Institute:** Data Science Bootcamp (07/2023), Applied Edge AI (10/2022)