Pranoy Ghosh

Blog | linkedin.com/in/pranoy24 | github.com/pranoyghosh

Education

New York University – Courant Institute of Mathematical Sciences New York, USA
MS in Computer Science — GPA: 3.78/4 *Sep. 2025 – Expected May 2027*

- **Relevant Coursework**: Machine Learning, Operating Systems, Programming Languages

Manipal Institute of Technology Manipal, India
B.Tech Computer and Communication Engineering — CGPA: 9.07/10 *Jul. 2017 – Aug. 2021*

Experience

Member of Technical Staff - DevOps Nov. 2022 – July 2025
Cohesity Inc. *Bengaluru, India*

- Architected and deployed a **lab automation platform** serving 600+ engineers with 100+ monthly active users, reducing infrastructure provisioning time by 60% through Infrastructure as Code implementation.
- Engineered a **log parser tool** processing 5M+ diagnostic events daily, reducing Time to Resolution (TTR) for field engineers analyzing distributed system failures.
- Designed and developed a **performance analyzer tool** that extracted actionable insights from raw diagnostics data, identifying I/O bottlenecks in Cohesity's distributed file system and improving troubleshooting efficiency.
- Integrated lab automation system with Cohesity Knowledge Base to auto-generate Break-Fix scenarios, reducing SRE onboarding time by 50% through reproducible failure simulations.

Site Reliability Engineer Aug. 2021 – Oct. 2022
Cohesity Inc. *Bengaluru, India*

- Optimized incident resolution workflows for distributed data management platform, maintaining high availability across 200+ production deployments.
- Served as **Subject Matter Expert** for cluster capacity issues, debugging garbage collection, and data healing processes.
- Collaborated with R&D teams to implement 15+ product improvements based on field diagnostics, enhancing platform reliability and performance.

Projects

Pico LLM – Transformer Language Model | *Python, PyTorch, YAML*

- Built a causal decoder-only transformer language model from scratch with custom attention mechanisms, positional embeddings, and KV caching optimizations for efficient inference (PyTorch).
- Implemented model interpretability module with checkpoint loading, attention visualization, and feature-based steering capabilities to analyze model behavior during generation.
- Trained model on custom datasets with configurable hyperparameters via YAML, achieving convergent loss curves and coherent text generation on validation sets.

Unix Shell Implementation | *C, Make*

- Developed a POSIX-compliant Unix shell supporting built-in commands, I/O redirection, pipelines, background processes, and signal handling using system calls (fork, exec, wait) as part of NYU's graduate Operating Systems course.
- Implemented command-line parser with enforced grammar validation and robust error handling for edge cases.

Technical Skills

Languages: Python, C/C++, Bash, SQL, JavaScript, Terraform, PowerShell.
ML/AI: PyTorch, TensorFlow, Transformers, OpenCV, Model Training, Deep Learning.
Cloud & DevOps: AWS, Azure, Docker, Terraform.
Frameworks & Tools: Flask, Dash, Django, Git, Tableau, Neovim, Zabbix, Robot Operating System.

Accomplishments

Publication: Co-authored a peer-reviewed IEEE paper on photorealistic image generation from 3D models using deep learning (MysuruCon 2021).
Tata Makerthon 2018: Winner of India's prestigious hardware innovation competition (100+ teams), leading to technical internship with Tata Sons Ltd.