Abhijeet Saha

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Education

Cornell University — Ithaca, NY
BS Computer Science, Minor in Mathematics — Aug 2021 - May 2025

- Coursework: Stochastic Processes, Distributed Computing, Networks, Large-Scale Machine Learning, Reinforcement Learning, Operating Systems, Operating Systems Practicum, Computer Architecture, Analysis of Algorithms, Honors Linear Algebra, Honors Analysis, Honors Algebra, OOP and DSA, Discrete Structures, Functional Programming, High Dimensional Randomized Algorithms, Combinatorics, Probability Theory.
- John McMullen Dean's Scholar

Stuyvesant High School — New York, NY

- NYC Math Team, Competed in AMC, AIME, ARML, HMMT, NYSML, and IML

Experience

Scale — Ithaca, New York
Technical Advisor Intern - GenAI — Jan 2024 - Present

- Training AI to solve competitive programming problems

Meta — Menlo Park, California
Software Engineer Intern — May 2024 - Aug 2024

- Worked in the Asset Discovery - Foundations team under the Privacy Infra Group
- Created an efficient thread-safe tracer in C++ for resource usage metrics on various services
- Used logged metrics to create a dashboard for tracking spikes in resource usage (i.e. OOMs)
- Used tracer to identify and refactor inefficient implementations, reducing memory usage significantly in old code.

Cornell University — Ithaca, New York
Teaching Assistant — Jan 2024 - Present

- Made Operating Systems and Synchronization easier to understand for students

Roblox — San Mateo, California
Software Engineer Intern — May 2023 - Aug 2023

- Improved search by downranking low quality clones of popular games.
- Created a pipeline using PyTorch and RobloxML library to produce semantic CLIP embeddings of game thumbnails and names.
- Used embeddings and game quality metrics to rerank existing sort using the MMR search diversification algorithm, reducing clones and improving relevance.
- Productionized the algorithm and data storage, bringing the total runtime increase down to 100ms end to end, so it can be used as a final step in ranking.
- Increased qualified click-through rate (QCTR) by 4% in controlled A/B tests.

MIT Lincoln Laboratory — Lexington, Massachusetts
Independent Researcher — Jun 2020 - Aug 2020

- Worked on creating a proximity detection model for COVID-19 using BLE signals.
- Used noisy BLE signal strength to predict the real-time distance between two BLE transmitters.
- Final model achieved 96% accuracy using only 10 most recent real-time BLE measurements.

Projects

DSLabs *Java*
Worked on Distributed Systems Labs, implementing protocols for Client-Server RPC's, Primary-Backup state machine replication, Paxos for fault-tolerant consensus among replicas, and a Sharded Key/Value Service using Paxos.

EGOS *C*
Worked on Earth and Grass Operating System for OS Practicum. Implemented User-Level Threading, Interrupts and Exceptions, RAID4 interface, and a FAT File System. Course sensitive code.

Vortex *OCaml* — https://github.com/asaha01/Vortex
A modern text editor that features cursor control, word completion, find and replace, and file saving.

Cattleship *C* — https://github.com/asaha01/cattleship
A multiplayer terminal game (clone of Battleship) implemented with server and client handshakes.

ASK Shell *C* — https://github.com/asaha01/shell
Fast shell in terminal that supports forking and executing multiple commands, piping and redirection.

Honors

- Top 500 in 2023 Putnam Competition, Score of 30, Rank 435
- AIME Qualifier
- USACO Gold

Skills

Academic Interests	Operating Systems, Machine learning, Data science, Problem Solving
Technologies	C/C++, Linux, Python, Java, C#, SQL, Spark, Hive, PyTorch, NumPy/Pandas, Github
Interests	Climbing, Tetris, Investment