

Ranveer Thind

US Citizen | [linkedin.com/rsthind](https://www.linkedin.com/company/rsthind) | github.com/rsthind

EDUCATION

Georgia Institute of Technology, Atlanta, GA

Masters of Science, Computer Science - GPA: 4.00/4.00

Aug 2022 - May 2023

Bachelors of Science, Computer Science - GPA: 4.00/4.00

Aug 2019 - May 2022

Coursework: Computer Organization & Programming, Database Systems, Information Security, Deep Learning

EXPERIENCE

Pinterest | *Software Engineer II* | New York, NY

Feb '25 - **Pres**

- Optimized server-side A/B experiment retrieval, reducing compute and saving **\$300,000** annually in prod, while seeing a **40ms** reduction in P50 and P90 latency across all client platforms (Android, iOS, Web) using **Python**

Pinterest | *Software Engineer I* | New York, NY

Aug '23 - Feb '25

- Implemented Memcache for expensive rule-based filtering, that handled **100K RPS**, saving **\$150,000** annually
- Spearheaded** regression investigation on a **80K RPS** key endpoint, optimizing p90 latency by **60ms** through information retrieval parallelization and code architecture optimizations
- Designed and implemented an automated data workflow using **Apache Spark** to detect experiment regressions
- Improved cache key stability for user experiments, increasing hit rate by **30%** and reducing CPU usage by **0.30%**
- Led** cross-team collaboration with client teams to introduce request header logic for preloading images and videos, reducing content delivery latency by **2%** on high impact surfaces
- Independently managed and mentored an intern, overseeing a project from inception to successful completion

Meta | *Software Engineering Intern* | Menlo Park, CA

May '22 - Aug '22

- Created and proposed a **SparseNN** model to predict user sentiment based on ad repetition over **production** model based on greater correlation with GT, lower NE, trend analysis, guarantee of group breakdown
- Performed data analysis for correlation, trend, and experiment-based studies for **10+** experiments in **Python**
- Engineered a recurring data pipeline to efficiently convert raw prediction data to evaluation data using **SQL**

Amazon | *Software Development Engineering Intern* | Seattle, WA

May '21 - Aug '21

- Created a high-performance **dockerized** service leveraging **AWS ECS, EC2, ECR**, and HNSWlib to efficiently index face vectors for quick KNN search, achieving an impressive **99.86%** accuracy
- Optimized original KNN index creation time by **92%** & documented key metrics on AWS Cloudwatch
- Designed and uploaded unique image mappings and indexes to **AWS S3**

Queues | *Backend Developer Intern* | Atlanta, GA

Aug '20 - Apr '21

- Conducted real-time analysis of **1,000+** CV data points per hour using influxDB to monitor and assess human traffic within college campuses and restaurants
- Collaborated closely with Mobile and Web dev teams to develop **50+** REST API routes in **Python** using Flask and **MongoDB** for efficient data analysis, user auth, and tokenization and hosted on a fleet of AWS EC2 machines

PROJECTS

Virtual Memory System Simulator

May '23 - Jul '23

- Developed a virtual memory system simulator with address translation, page fault handling, frame eviction, and conducted a comparative analysis of 2 page replacement algorithms in **C++**
- Enhanced **page access efficiency** by **67%** through the implementation of the Clock Sweep Algorithm, outperforming Random Replacement for optimal page replacement
- Designed a robust page table and frame table to manage virtual memory and implemented **context switching** to update the page table base register for accelerated memory access during process execution

Multiprocessor Operating System CPU Scheduler

Jan '23 - Mar '23

- Implemented CPU scheduling algorithms (Round Robin, Shortest Time Remaining First, Shortest Job First, and First Come First Serve) for a **multiprocessor** operating systems simulator
- Leveraged **pthreads** for multithreading, efficiently managing mutex locks/unlocks and condition variables
- Used context switching function to switch executing processes

TECHNICAL SKILLS

Frontend: React, Next.js, TailwindCSS, Typescript, JavaScript, HTML/CSS

Backend: Java, Python, C++, SQL, Node.js, MongoDB, PostgreSQL, GraphQL

Frameworks/Tools: AWS (S3, ECS, EC2, ECR), Docker, Apache Spark, Apache Airflow, InfluxDB, Git, Flask