APOORVA KASHI

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Education

Stony Brook University   New York, USA
M.S. in Computer Science; GPA: 3.74/4.00   *August 2023 – May 2025(expected)*

Visvesvaraya Technological University   Bangalore, India
B.Tech. in Computer Science and Engineering; GPA: 3.55/4.00   *August 2018 – July 2022*

Skills

Programming Languages: C/C++, Python, Javascript, C#, Go, SQL, HTML, CSS, GraphQL, VB.NET
Tools: Node, Git, MongoDB, PostgreSQL, Docker, AWS, Kubernetes, MySQL, Wireshark
Frameworks and Libraries: React, Flask, Pytorch, Tensorflow, CUDA Python, NumPy, Pandas, LangChain

Experience

HLAB, Stony Brook University.   Stony Brook, NY, USA
Graduate NLP Researcher   *August 2024 - Present*

- Deployed a **Flask**-based scientific claim verification API with **LLM Agents**, a **RAG pipeline**, and user-configurable models, handling queries on **AWS EC2** with a **Nginx** reverse proxy. Enhanced reasoning and decision-making capabilities by 13% with a **multi-agent debate framework**.

Center for Visual Computing, CEWIT, Stony Brook University   New York, USA
C++ Developer   *January 2024 - May 2024*

- Built a high performance **C++** and **OpenGL** based **multi-threaded** rendering pipeline for Silo, a stereoscopic cylindrical tiled-display system with 168 LCD panels and 619M pixels.
- Implemented real-time user input handling via **VRPN** for gamepad controllers and managed synchronization across 6 nodes using **Boost.Asio** for low-latency communication.

UiPath, India   Bangalore, India
Software Engineer   *September 2022 - April 2023*

- Automated Amazon's payroll processing in **C#**, with **OCR** engines and UiPath Studio, reducing payroll errors by 60%.
- Optimized time-triggered workflows on Orchestrator Cloud reduced processing time and **saving 30+ manual hours** per week. Followed **AGILE** methodology.

Sync Energy AI   Remote, India
Full Stack Intern   *December 2020 - July 2021*

- Created a low-code machine learning workflow with **ReactJS** and **Django**, reducing dataset selection and model configuration time. Improved query response times by 25% by optimizing **RESTful APIs** and scaling inference on **AWS**.

Projects

Secure Network Proxy in Go

- Analyzed network traffic with **Wireshark** and **tcpdump** to identify security vulnerabilities.
- Developed a TCP Proxy in **GoLang** to secure traffic for **SSH** with **AES-GCM** encryption and a **PBKDF2** derived key (4096 iterations), handling multiple connections asynchronously using 2 **goroutines**, optimizing throughput and reducing latency.

File based Datastore in C++

- Implemented a file-based database system in **C++** with **B-Tree** indexing, achieving 4x faster search and retrieval.
- Optimized file-based I/O, reducing access time by 70% for efficient CRUD operations on 10,000+ records.

StreamFlix: Scalable Video Streaming Platform

- Developed a microservices-based **MERN** platform supporting user authentication, content management, recommendations, and streaming history.
- Containerized services with Docker and scaled on AWS EKS with an API Gateway, decreasing downtime by **35%**.

Co-curricular

Teaching Assistant, Software Security, Stony Brook University.

- Wrote an autograder and **designed test cases** to evaluate Enigma machine implementations in Java, C++, Python, and Go for **60+ students**.
- Graded buffer overflow and memory leak simulations on Kali Linux and performed reverse engineering to analyze binary executable with **Ghidra**.