

# MUHAMMAD HASEEB

Manhattan, New York | (646) 240-6375 | [mh6218@nyu.edu](mailto:mh6218@nyu.edu)

## EDUCATION

---

### Ph.D. Computer Science

Sept. 2021 – May 2025

New York University, New York, USA

Research Focus: Distributed Systems, Networks, Microservices, Cloud Computing, AR/VR

GPA: 4.0/4.0

### Bachelor of Science, Computer Science

Sept. 2016 – May 2020

Lahore University of Management Sciences (LUMS), Lahore, Pakistan

GPA: 3.69/4.0

## PROFESSIONAL EXPERIENCE

---

### Networking Research Intern

June 2023 – August 2023

Nokia Bell Labs, Murray Hill, New Jersey

- Led a project for designing and developing a streaming service for AR/VR content
- Designed and implemented a scalable streaming system that can adapt to network conditions and serve heterogeneous clients using minimal resources
- Designed an encoder/decoder for point cloud data that can tolerate packet losses

### Software Engineer

June 2020 – August 2021

TechForge, Lahore, Pakistan

- Designed and implemented an access control system for different tools of the company
- Setup CI/CD pipeline along with testing infrastructure using TeamCity and AWS
- Automated and maintained AWS-hosted development infrastructure
- Secured the product website by eliminating critical vulnerabilities (XSS, CSRF, IDOR)

## ACADEMIC RESEARCH PROJECTS

---

### Fast, expressive, and cheap analytics for distributed traces using cloud storage

- Developed a data management system atop cloud storage for distributed tracing data
- Devised storage indices specialized for querying traces based on their graph structures
- Achieved 60% better query performance than Grafana Tempo

### High-performance and scalable multicast as a cloud service

- Designed and implemented a low-latency and scalable multicast service
- Used kernel-bypass techniques (DPDK) for achieving ultra-low latency
- Achieved better latency and scalability than the multicast provided by AWS Transit Gateway

## PATENTS

---

### A Method To Enable Fast Transmission And Processing Of 3D Telepresence Data Encoded As Octrees

(Approved by Nokia's internal board, In submission to USPTO)

**Skills:** C/C++, Python, Go, Rust, Javascript, Kernel Bypass (DPDK, XDP), Volumetric Videos Streaming, Systems Design

**GitHub:** <https://github.com/HaseebLUMS>

**Google Scholar:** <https://scholar.google.com/citations?user=6Wk-HSAAAAAJ&hl=en>