

Wasiq Noor Ahmad Qasmi

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EDUCATION

Lahore University of Management Sciences

2017 - 2019

Master of Science in Computer Science; CGPA: 3.41

Relevant Courses: Applied Probability, Design and Analysis of Algorithms, Distributed Systems, Network Security

University of Bradford

2012 - 2016

Bachelor of Science in Computer Science; CGPA: 4.00

Relevant Courses: Cyber Security, Data Structures and Algorithms, Database Systems, Neural Networks and Fuzzy Systems

EXPERIENCE

Educative

Aug 2020 - Present

Software Engineer

- Working as a full stack engineer with prominent responsibility of maintaining continuous integration.
- Build and maintain new platform for tech learners to integrate relevant content into a single compilation.

Zong Research Lab, Lahore University of Management Sciences

Sep 2018 - May 2020

Research Assistant

- Implemented Control Traffic Aggregator for fast packet processing at 10Gbps using kernel bypass via DPDK.
- Implemented load-balancing and fault tolerance using consistent hashing among geographically distributed nodes.
- Encoded cellular messages using a new serialization scheme, FlatBuffers, to improve the serving rate by up to 10×.

Cloud Computing Research Lab

Jun 2016 - Mar 2017

Research Assistant

- Implemented a Disaster Recovery (DR) solution for OpenStack, that could recover the user's state within 3 seconds.
- Designed and tested the DR solution over the AWS and recovered EC2 instances in Australia and USA under disaster situation.

PUBLICATIONS

- **A Low Latency and Consistent Cellular Control Plan:** SIGCOMM 2020, New York, USA
- **Fast EPC: A Low Latency Cellular Control Plane:** SIGCOMM 2019, Beijing, China

PROJECTS

- **Cellular Security (C/C++):** Developed and executed 4 new cyber security attacks for LTE networks. These attacks were then benchmarked to measure the impact, which resulted in delayed responses by up to 40×.
- **Bitcoin Miner (Golang):** Implemented a fault-tolerant and concurrency safe bitcoin miner employing cryptographic functions among distributed nodes included a front-end load-balancer to reduce the completion time.
- **Censorship Analysis of Google (Python):** Categorized and detected Google auto-suggestions are biased and potentially censored based on the user's current location.
- **Fuse File System (Python):** Developed a new file system for Linux using FUSE and LevelDB that was able to perform 10× faster than the traditional ext4.
- **Serendipity (Python):** Developed a distributed file system, like Google File System, for private cloud deployments with different access levels and failure recovery protocols.
- **DRaaS (Python):** Build a protocol as a service for detection of disastrous failures in large data-centers which would provide services to users from alternate recovery points.

PROGRAMMING SKILLS

Languages: Proficient in C/C++ Golang and Python. Prior experience in Rust, Java and SQL

Technologies: DPDK, AWS, Google App Engine, Git

AWARDS AND CERTIFICATES

Winner Speed Programming Competition 2015, 2016

Microsoft Certification in Programming with C#