Md Monjurul Karim

Curriculum Vitae

International Student Center (No. 14 Build.),
Beijing Institute of Technology,
5 South Zhongguancun Street,
Haidian District, Beijing 100081
✆ +86 132 6189 0899
✉ karim.npu@outlook.com
🖰 karimmd.github.io

Industry Experience

Feb 2015 - Mar 2015	**Network Engineer Intern.**, *Ericssion (Xi'an)*, Xi'an, China.
Jun 2011 - Jul 2011	**Software Developer Intern.**, *Insigma Technology Co. Ltd.*, Hangzhou, China.

Academic Experience

Sep 2016 - Jun 2021	**Research Assistant**, *School of Computer Science*, Beijing Institute of Technology (BIT), Haidian District, Beijing, China.
Feb 2013 - Feb 2015	**Research Assistant**, *School of Computer Science*, Northwestern Polytechnical University (NWPU), Xi'an, Shaanxi Province, China.

Education

Sep 2016 - Jun 2021 **Ph.D. (Under Progress) in Computer Science and Technology**, *School of Computer Science*, Beijing Institute of Technology (BIT), Beijing, China.
- Study completed by June, 2021. Final defense will be arranged online later.
- Average: 90%
- Advisor: Prof. Zhu Liehuang
- Thesis Title: Optimization of Information-Centric Software-Defined Networking

Sep 2012 - Mar 2015 **M.E. in Computer Science and Technology**, *School of Computer Science*, Northwestern Polytechnical University (NWPU), Xi'an, China.
- Average: 77.75%
- Advisor: Dr. Yao Ye
- Thesis Title: Source Code based Buffer Overflow Detection

Sep 2008 - Jul 2012 **B.E. in Computer Science and Technology**, *School of Computer Science*, Northwestern Polytechnical University (NWPU), Xi'an, China.
- Average: 76.96%
- Advisor: Dr. Jiang Xue Feng
- Thesis Title: Packet Filtering Technique in IPv6 Networking Environment

Publications (🛈 Google Scholar profile)

TNSM 2020
Q1, IF: 3.878 **DOLPHIN: Dynamically Optimized and Load Balanced PatH for INterdomain SDN Communication**.
Zohaib Latif, Kashif Sharif, Fan Li, <u>Md Monjurul Karim</u>, Sujit Biswas, Madiha Shahzad, Saraju P. Mohanty
IEEE Transactions on Network and Service Management, Volume 18, Issue 1, March 2021.
🛈 DOI

CSUR 2020
Q1, IF: 7.990 **SDN Controllers: A Comprehensive Analysis and Performance Evaluation Study**.
Liehuang Zhu, <u>Md Monjurul Karim</u>, Kashif Sharif, Chang Xu, Fan Li, Xiaojiang Du, Mohsen Guizani
ACM Computing Surveys, Volume 53, Issue 6, December 2020. 🛈 DOI 🛈 Preprint

CSUR 2020 Q1, IF: 7.990	**A Survey of Network Virtualization Techniques for Internet of Things Using SDN and NFV**. Iqbal Alam, Kashif Sharif, Fan Li, Zohaib Latif, <u>M M Karim</u>, Sujit Biswas, Boubakr Nour, Yu Wang ACM Computing Surveys, Volume 53, Issue 2, April 2020. ⓘ DOI ⓘ Preprint
JNCA 2020 Q1, IF: 5.570	**A Comprehensive Survey of Interface Protocols for Software Defined Networks**. Zohaib Latif, Kashif Sharif, Fan Li, <u>Md Monjurul Karim</u>, Sujit Biswas, Yu Wang Journal of Network and Computer Applications, Volume 156, 15 April 2020. ⓘ DOI ⓘ Preprint
WASA 2018 CCF C	**Quadrant-Based Weighted Centroid Algorithm for Localization in Underground Mines**. Nazish Tahir, <u>Md Monjurul Karim</u>, Kashif Sharif, Fan Li, Nadeem Ahmed International Conference on Wireless Algorithms, Systems, and Applications, 2018 ⓘ DOI

Research Interests

Software-Defined Networking.

Information-Centric or Named Data Networking.

Machine Learning in Computer Networking.

5G, 5G-Evo and 6G.

Research Experience

Sep. 2016 – Jun. 2021	**Research Assistant, School of Computer Science, Beijing Institute of Technology (BIT), Beijing**. *Supervision under Prof. Zhu Lie Huang and Dr. Kashif Sharif* ○ Qualitative and Quantitative Evaluation of SDN Controllers ○ Applicability of Information-Centric Software-Defined Paradigm in Vehicular 5G Network ○ Implementing Software-Defined Forwarding and Caching into Clean-slate Information-Centric Platforms ○ Optimizing Information-Centric Software-Defined Principle into Edge-enabled UAV-assisted Network
Feb. 2013 - Dec. 2014	**Research Assistant, School of Computer Science, Northwestern Polytechnical University (NWPU), Xi'an**. *Supervisor: Dr. Yao Ye* ○ Lexical and Systax Analysis on C/C++ Source Code ○ Penetration Testing to detect OS vulnerabilities

Academic Services

Reviewer	**IEEE Access (Journal)**. **IEEE Consumer Electronics Magazine (Magazine)**. **IEEE UIC (Conference Proceedings)**.

Technical Skills

Languages	Python, C, C++, Tex
Web Technology	Markdown, HTML, CSS, REST, JSON, XML
DevOps/Build Tools	Docker, Vagrant, Git, Make, Kubernetes
Simulation Tools	NS3, Matlab, Mininet, GNS3

Foreign Language Skills

Professional	English
Professional	Mandarin Chinese
Native	Bengali
Intermediate	Hindi, Urdu

Awards

- Chinese Government Fully Funded Scholarship, Dhaka (Bangladesh), 2016.
- Overall Band Score 7.0 in IELTS Academic and General Modules, Dhaka (Bangladesh), 2015.
- Cisco Certified Network Professional in Routing and Switching, Xi'an (China), 2014.
- 2nd Prize, Cyber Security Alliance Innovation Competition, Beijing (China), 2014.
- Cisco Certified Network Associate in Security, Xi'an (China), 2013.
- Cisco Certified Network Associate in Routing and Switching, Dhaka (Bangladesh), 2012.
- NWPU University Scholarship, Northwestern Polytechnical University, Xi'an (China), 2012.
- Intensive Chinese Languages Completion Certificate, Tianjin University, Tianjin (China), 2008.
- Chinese Government Fully Funded Scholarship, Dhaka (Bangladesh), 2007.

References

Ph.D. Supervisor	**Prof. Liehuang Zhu**, *Professor*, School of Computer Science, Beijing Institute of Technology, Beijing. ✉ liehuangz@bit.edu.cn ⓘ homepage
Ph.D. Co-supervisor	**Prof. Kashif Sharif**, *Associate Professor (Research)*, School of Computer Science, Beijing Institute of Technology, Beijing. ✉ kashif@bit.edu.cn ⓘ homepage
BIT, CS Dept.	**Prof. Fan Li**, *Professor*, School of Computer Science, Beijing Institute of Technology, Beijing. ✉ fli@bit.edu.cn ⓘ homepage