

Md Monjurul Karim

Curriculum Vitae

International Student Center (14 Build.),
Beijing Institute of Technology,
5 South Zhong Guan Cun Street,
Hai Dian District, Beijing 100081
☎ +86 132 6189 0899
✉ karim.npu@outlook.com
✉ mkarim@bit.edu.cn
📁 karimmd.github.io

Academic Experience

- Sep 2016 - Present **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 (NWPUP), Xi'an, Shaanxi Province, China.

Education

- Sep 2016 - July 2021 **Ph.D. in Computer Science and Technology**, *School of Computer Science*, Beijing Institute of Technology (BIT), Beijing, China.
○ Average: 90%
○ Advisor: Prof. Zhu Liehuang
○ Thesis Title: Optimization of Data-Centric Software-Defined Networking
- Sep 2012 - Mar 2015 **M.E. in Computer Science and Technology**, *School of Computer Science*, Northwestern Polytechnical University (NWPUP), 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 (NWPUP), 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 2021 **DOLPHIN: Dynamically Optimized and Load Balanced PatH for Inter-domain SDN Communication.**
Zohaib Latif, Kashif Sharif, Fan Li, [Md Monjurul Karim](#), Sujit Biswas, Madiha Shahzad, Saraju P. Mohanty
IEEE Transactions on Network and Service Management. [📄 DOI](#)
- CSUR 2020 **SDN Controllers: A Comprehensive Analysis and Performance Evaluation Study.**
Liehuang Zhu, [Md Monjurul Karim](#), Kashif Sharif, Chang Xu, Fan Li, Xiaojiang Du, Mohsen Guizani
ACM Computing Surveys, Volume 53, Issue 6, December, 2020. [📄 DOI](#) [📄 Preprint](#)
- CSUR 2020 **A Survey of Network Virtualization Techniques for Internet of Things Using SDN and NFV.**
Iqbal Alam, Kashif Sharif, Fan Li, Zohaib Latif, [M M Karim](#), Sujit Biswas, Boubakr Nour, Yu Wang
ACM Computing Surveys, 2020 [📄 DOI](#) [📄 Preprint](#)

- JNCA 2020 **A Comprehensive Survey of Interface Protocols for Software Defined Networks.**
Zohaib Latif, Kashif Sharif, Fan Li, Md Monjurul Karim, Sujit Biswas, Yu Wang
Journal of Network and Computer Applications, 2020 [DOI](#) [Preprint](#)
- WASA 2018 **Quadrant-Based Weighted Centroid Algorithm for Localization in Underground Mines.**
Nazish Tahir, Md Monjurul Karim, Kashif Sharif, Fan Li, Nadeem Ahmed
International Conference on Wireless Algorithms, Systems, and Applications, 2018
[DOI](#)

Publications (Under Progress)

- TVT 2021 **Tarffic Flow Optimization for UAVs operated in Multi-layer Information-centric Softwarized FANET.**
Md Monjurul Karim, Kashif Sharif, Liehuang Zhu, Fan Li, and Chang Xu
Journal to be submitted in IEEE TVT.
- 2021 **Content Discovery and Distribution in Clean-slate Softwarized Information Centric Network.**
Md Monjurul Karim, Kashif Sharif, Liehuang Zhu, Fan Li, and Chang Xu
Journal (To be decided).
- 2021 **A Data-Centric Softwarized Intelligent Transport System for Intelligent AI-enabled 6G Mobile Network.**
Md Monjurul Karim, Kashif Sharif, Liehuang Zhu, Fan Li and Chang Xu
Journal (To be decided).

Research Interests

Software-Defined Networking.
Information-Centric or Named Data Networking.
Machine Learning in Computer Networking.
5G and Beyond (6G).

Research Experience

- Sep. 2016 – Jul. 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 (NWPUE), Xi'an.**
Supervisor: Dr. Yao Ye
 - Lexical and Syntax 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).

Industry Experience

Jul 2015 - Jul 2016 **Network Engineer Intern.**, *SRK Showtime*, Dhaka, Bangladesh.
Feb 2015 - Mar 2015 **Network Engineer Intern.**, *Ericsson (Xi'an)*, Xi'an, China.
Jul 2012 - Aug 2012 **System Admin. Intern.**, *Smarttel Technologies Lt.*, Dhaka, Bangladesh.
Jun 2011 - Jul 2011 **Developer Intern.**, *Insignia Technology Co. Ltd.*, Hangzhou, China.

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 **Professor Liehuang Zhu**, *Professor*, School of Computer Science, Beijing Institute of Technology, Beijing.
✉ liehuangz@bit.edu.cn [📄 homepage](#)

Ph.D. Co-supervisor **Dr. Kashif Sharif**, *Associate Professor (Research)*, School of Computer Science, Beijing Institute of Technology, Beijing.
✉ kashif@bit.edu.cn [📄 homepage](#)

BIT, CS Dept. **Professor Fan Li**, *Professor*, School of Computer Science, Beijing Institute of Technology, Beijing.
✉ fli@bit.edu.cn [📄 homepage](#)