

Md Faizul Bari, PhD

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Academic Experience

- Sep 2018 – Present **Postdoctoral Fellow**, *David R. Cheriton School of Computer Science*, University of Waterloo, Canada.
- Sep 2010 – Sep 2018 **Research and Teaching Assistant**, *David R. Cheriton School of Computer Science*, University of Waterloo, Canada.
- May 2010 – Aug 2010 **Assistant Professor**, *Department of Computer Science and Engineering*, Bangladesh University of Engineering and Technology, Bangladesh.
- Jun 2007 – May 2010 **Lecturer**, *Department of Computer Science and Engineering*, Bangladesh University of Engineering and Technology, Bangladesh.

Industry Experience

- Jun 2007 – Aug 2010 **Software Development Consultant**, *Bureau of Research, Testing and Consultation*, Bangladesh University of Engineering and Technology, Bangladesh.
- Apr 2004 – Feb 2010 **Co-Founder & Lead Software Developer**, *InnoMaxBD*, Bangladesh.

Teaching Experience

Teaching Assistant, *David R. Cheriton School of Computer Science*

- CS856: Advanced Topics in Computer Systems: Software Defined Networks/Infrastructure
- CS456: Computer Networks
- CS436: Distributed Computer Systems
- CS241: Foundations of Sequential Programs
- CS115: Introduction to Computer Science

Lecturer & Assistant Professor, *Department of Computer Science and Engineering, Bangladesh University of Engineering and Technology*

- CSE 461: Algorithm Engineering
- CSE 315: Microprocessors & Microcontrollers
- CSE 201: Object Oriented Programming Language

CISCO CCNA Instructor, *Department of Department of Computer Science and Engineering, Bangladesh University of Engineering and Technology*

- CCNA Exploration 1: Network Fundamentals
- CCNA Exploration 2: Routing Protocols and Concepts
- CCNA Exploration 3: LAN Switching and Wireless
- CCNA Exploration 4: Accessing the WAN

Education

- 2010 – 2018 **PhD in Computer Science**, *David R. Cheriton School of Computer Science*, University of Waterloo, Canada.
- o Average: 95%
 - o Advisor: Raouf Boutaba
 - o Thesis Title: [Resource Orchestration in Softwarized Networks](#)
- 2007 – 2009 **MSc in Computer Science & Engineering**, *Department of Computer Science and Engineering*, Bangladesh University of Engineering and Technology, Bangladesh.
- o CGPA: 3.92/4.0
 - o Advisor: M. Sohel Rahman
 - o Thesis Title: [String Regularities and Degenerate Strings](#)
- 2002 – 2007 **BSc in Computer Science & Engineering**, *Department of Computer Science and Engineering*, Bangladesh University of Engineering and Technology, Bangladesh.
- o CGPA: 3.96/4.0
 - o Advisor: Md. Monirul Islam
 - o Thesis Title: [New Algorithms for Associative Classification](#)

Publications

Journal & Magazine Papers

- o [Orchestrating Virtualized Network Functions](#) *Citations: 85+*
M. F. Bari, S. R. Chowdhury, R. Ahmed, R. Boutaba, and O. C. M. B. Duarte
IEEE Transactions on Network and Service Management (TNSM) 2016
- o [aRoute: Routing on Names](#)
R. Ahmed, M. F. Bari, S. R. Chowdhury, M. G. Rabbani, R. Boutaba, and B. Mathieu
IEEE Transaction on Networking (TON) 2016
- o [nf.io: A File System Abstraction for NFV Orchestration](#)
M. F. Bari, S. R. Chowdhury, R. Ahmed, and R. Boutaba
ACM SIGCOMM Computer Communications Review (CCR) 2015
- o [A Naming Scheme for P2P Web Hosting](#)
M. F. Bari, M. R. Haque, R. Ahmed, R. Boutaba, and B. Mathieu
IEEE Journal on Selected Areas in Communications (JSAC) 2013
- o [Data Center Network Virtualization: A Survey](#) *Citations: 505+*
M. F. Bari, R. Boutaba, R. Esteves, L. Z. Granville, M. Podlesny, M. G. Rabbani, Q. Zhang, and M. F. Zhani
IEEE Communications Surveys and Tutorials 2013
- o [A Survey of Naming and Routing in Information Centric Networks](#) *Citations: 405+*
M. F. Bari, S. R. Chowdhury, R. Ahmed, R. Boutaba, and B. Mathieu
IEEE Communications Magazine 2012
- o [Intelligent Mobile Health Monitoring System \(IMHMS\)](#) *Citations: 125+*
R. Shahriyar, M. F. Bari, G. Kundu, S. I. Ahamed, and M. M. Akbar
International Journal of Control and Automation (IJCA) 2009

Conference & Workshop Papers

- [Emulating an infrastructure with EASE](#)
A. R. Roy, S. R. Chowdhury, *M. F. Bari*, R. Ahmed, and R. Boutaba
IEEE/ACM/IFIP CNSM 2016
- [On Orchestrating Virtual Network Functions](#) *Citations: 210+*
M. F. Bari, S. R. Chowdhury, R. Ahmed, and R. Boutaba
IEEE/ACM/IFIP CNSM 2015
- [nf.io: A File System Abstraction for NFV Orchestration](#)
M. F. Bari, S. R. Chowdhury, R. Ahmed, and R. Boutaba
IEEE NFV-SDN 2015
- [DEWS: A Decentralized Engine for Web Search](#)
R. Ahmed, *M. F. Bari*, M. R. Haque, and R. Boutaba
IEEE/ACM/IFIP CNSM 2014
- [pWeb: A Personal Interface to the World Wide Web](#)
R. Ahmed, S. R. Chowdhury, A. Pokluda, *M. F. Bari*, and R. Boutaba
IFIP Networking 2014
- [CQNCR: Optimal VM Migration Planning in Cloud Data Centers](#) *Citations: 35+*
M. F. Bari, M. F. Zhani, Q. Zhang, R. Ahmed, and R. Boutaba
IFIP Networking 2014
- [Design and Management of DOT: A Distributed OpenFlow Testbed](#)
A. R. Roy, *M. F. Bari*, M. F. Zhani, R. Ahmed, and R. Boutaba
IEEE/IFIP NOMS 2014
- [PayLess: A Low Cost Network Monitoring Framework for Software Defined Networks](#) *Citations: 255+*
S. R. Chowdhury, *M. F. Bari*, R. Ahmed, and R. Boutaba
IEEE/IFIP NOMS 2014
- [PolicyCop: An Autonomic QoS Policy Enforcement Framework for Software Defined Networks](#)
Citations: 120+
M. F. Bari, S. R. Chowdhury, R. Ahmed, and R. Boutaba
SDN4FNS 2013
- [Dynamic Controller Provisioning in Software Defined Networks](#) *Citations: 240+*
M. F. Bari, A. R. Roy, S. R. Chowdhury, Q. Zhang, M. F. Zhani, R. Ahmed, and R. Boutaba
IEEE/ACM/IFIP CNSM 2013
- [AlphaRoute: A Name Based Routing Scheme for Information Centric Networks](#)
R. Ahmed, *M. F. Bari*, S. R. Chowdhury, M. G. Rabbani, R. Boutaba, and B. Mathieu
IEEE INFOCOM 2013
- [Persistent Naming for P2P Web Hosting](#)
M. F. Bari, M. R. Haque, R. Ahmed, R. Boutaba, and B. Mathieu
IEEE P2P 2011
- [Bayesian Network Structure Learning](#)
M. F. Bari
AAAC 2011
- [A novel ACO technique for Fast and Near Optimal Solutions for the Multi-dimensional Multi-choice Knapsack Problem](#)

S. Iqbal, *M. F. Bari*, and M. S. Rahman
ICCIT 2010

- [Solving the Multi-dimensional Multi-choice Knapsack Problem with the help of Ants](#)
S. Iqbal, *M. F. Bari*, and M. S. Rahman
ANTS 2010
- [Finding all covers of an indeterminate string in \$O\(n\)\$ time on average](#)
M. F. Bari, M. S. Rahman, and R. Shahriyar
PSC 2009
- [Intelligent Mobile Health Monitoring System \(IMHMS\)](#)
R. Shahriyar, *M. F. Bari*, G. Kundu, S. I. Ahamed, and M. M. Akbar
eHealth 2009
- [ACN: An Associative Classifier with Negative Rules](#)
G. Kundu, M. M. Islam, S. Munir, and *M. F. Bari*
IEEE CSE 2008
- [A Novel Algorithm for Associative Classification](#)
G. Kundu, S. Munir, *M. F. Bari*, M. M. Islam, and K. Murase
ICONIP 2007

Demos & Posters

- [nf.io: A File System Abstraction for NFV Orchestration](#)
M. F. Bari, S. R. Chowdhury, R. Ahmed, and R. Boutaba
ACM SIGCOMM 2015
- [DOT: Distributed OpenFlow Testbed](#)
A. R. Roy, *M. F. Bari*, M. F. Zhani, R. Ahmed, and R. Boutaba
ACM SIGCOMM 2014

Awards & Honors

- Doctoral Thesis Completion Award (DTCA), University of Waterloo, Winter 2018.
- Ontario Graduate Scholarship (OGS), University of Waterloo, 2016-2017, 2012-2015.
- President's Graduate Scholarship (PGS), University of Waterloo, 2016-2017, 2012-2015.
- Dean of Math Award, University of Waterloo, 2015–2016.
- QNX Graduate Scholarship, 2014.
- David R. Cheriton Graduate Scholarship, University of Waterloo, 2011-2013.
- Student Travel Grant at CNSM 2013.
- University of Waterloo Special Graduate Scholarship, 2011.
- University of Waterloo Graduate Entrance Scholarship, University of Waterloo, 2010-2011.
- International Doctoral Student Award, University of Waterloo, 2010-2011.
- Mathematics Graduate Experience Award, University of Waterloo.
- Dean's Award, Bangladesh University of Engineering and Technology, Bangladesh.
- Academic Merit Scholarship, Bangladesh University of Engineering and Technology, Bangladesh.

Services

(External) Reviewer for the following journals & conferences:

- IEEE Communications Magazine
- IEEE Transactions on Network and Service Management (TNSM)
- Springer Journal of Network and Systems Management (JNSM)
- Elsevier Computer Communications
- IEEE International Conference on Distributed Computing Systems (ICDCS)
- IEEE International Conference on Computer Communications (INFOCOM)
- IEEE/IFIP International Conference on Network and Service Management (CNSM)
- IEEE/IFIP Network Operations and Management Symposium (NOMS)
- IEEE/IFIP International Symposium on Integrated Network Management (IM)

Technical Skills

Languages	C, C++, Java, C#, Python, JavaScript, SQL
Databases	SQLite, MySQL, MongoDB, Redis
Frameworks/Libraries	jQuery, Express, Angular, Node (MEAN Stack)
Web Technology	HTML, CSS, AJAX, REST, JSON, XML
DevOps/Build Tools	Docker, Vagrant, Git, Make, Ant, Maven