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| Md **Ashiq**ur **Rahman**  PhD Student ~ The University of Arizona | | | | | | | |  |  |  |  | | --- | --- | --- | --- | |  | marahman@email.arizona.edu | | | |  | [ashiqopu117](https://www.linkedin.com/in/ashiqopu117/) |  | [ashiqopu](https://github.com/ashiqopu) | |  | [ashiqrahman.com](https://ashiqrahman.com/) | | | | |
|  | Tempe, Arizona | |  | +1 (480) 310-7429 | | |
|  | | | | | | |
| **Skills** | | | | | | | | |
| **Research** | | Computer Networks, Named Data Networking, routing in mobile ad-hoc networks, scheduling algorithms with network coding in RSU-based vehicular ad-hoc networks (V2I). | | | | | | |
| **Coding and Tools** | | C/C++ (preferred), familiar with Scala, Java and Python; ViM, GDB, Lucene, Docker, NS-3, CSIM. | | | | | | |
| **Others** | | Natural language processing, Database systems, Information retrieval. | | | | | | |
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| **Experience** | | | | | | | | |
| ***Graduate Assistant*** | | | | | | | | |
| *Computer Science, The University of Arizona, AZ* | | | | | | | | *2016-Present* |
| Research: Architectural differences between Named Data Networking (NDN) and IP in mobile ad-hoc networks (submitted). Routing in challenging networks. | | | | |  | Teaching: CSC 425: Computer Networks (grader and project maintainer), Spring-17, Fall-17.  CSC 452: Operating Systems (grader). | | |
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| ***Instructor*** | | | | | | | | |
| *Computer Science and Engineering, Daffodil International University, Bangladesh* | | | | | | | | *2015-2016* |
| Teaching (in-person): CS 113: Intro to Programming, CS 134 Data Structures, CS 221: Algorithms. | | | | |  | Mentor, Contest organizer and Judge: Competitive programming: Beginner and Intermediate. | | |
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| ***Workshop Manager and Trainer*** | | | | | | | | |
| *Special Group of Interest in Programming Contests (SGIPC), KUET, Bangladesh* | | | | | | | | *2012-2015* |
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| **Education** | | | | | | | | |
| ***Graduate (PhD):*** *Computer Science, The University of Arizona, AZ (GPA: 3.75/4.00)* | | | | | | | | *2016-05/2021* |
| * Student Developer: NDN Forwarding Daemon (NFD): (<https://named-data.net/doc/NFD/current/>). A network forward that evolves together with the NDN architecture. * NLP: Built a weighted dropout probability-based system to support multi-level token annotation in medical literature. Near SoTA performance with significantly lower training time. *Tools: Python, Tensorflow, Docker*. * Information Retrieval: Built a (part of) Watson to index and retrieve top relevant Wikipedia pages for short queries similar to the Jeopardy game. Built a spam classifier. *Tools: Scala, Lucene, Maven*. | | | | |  | * DBMS: Implemented heapfile, buffer manager and B+ tree of a MINIBASE database system. *Tool: C.* * Networks: Implemented a software router with ARP and PWOSPF protocol supporting link failure. *Tool: C.* * Hackathon: 2nd Runner-up in 8th and Winner in 6th and 4th NDN Hackathon.   Relevant Coursework: Algorithms in NLP; Database Systems and Implementation; Text Retrieval & Web Search; Algorithms in Bioinformatics; Principles of Computer Networks; Operating Systems; Computer Graphics; Computer Security. | | |
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| ***Undergraduate (BSc):*** *Computer Science and Engineering, Khulna University of Engineering & Technology (KUET), Bangladesh (GPA: 3.60/4.00)* | | | | | | | | *2011-2015* |
| * Thesis: Application of network coding in scheduling algorithms in multi-RSU vehicular ad-hoc networks. *Published six papers* from related studies, two as the first author, two as second and two as third. *Tool: CSIM*. * Software Development: Implemented a gas station automation software, *Tools: C#, .NET, Crystal Reports.* * Hackathon: Winner- Water hackathon, World Bank (‘12). | | | | |  | * Programming: Four ACM ICPC regionals, IUT-ICT Fest (best- 14th). Workshop manager and trainer.   Relevant Coursework: Computer Networks, Data Communication, Machine Learning, Data Mining, Artificial Intelligence, Fault-tolerant systems, Data Structures and Algorithms, Algorithms, Mathematical Analysis, Digital System Design, Software Engineering. | | |