

MD Iftakharul Islam (Tamim)

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EDUCATION

PhD, Computer Science (expected in 2020)
Kent State University, Kent, OH, USA. GPA 3.82
BSc, Computer Science and Engineering (Jan 2008)
Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

PROGRAMMING SKILLS

C; C++; Java; C#; Python; Verilog; HTML; CSS; JavaScript

WORK EXPERIENCE

Graduate Assistant, Kent State University
Kent, OH, USA (Sep, 2013 - present)

- Implemented several existing and new routing table lookup algorithms. Evaluated the algorithms with the routing tables from real core routers. Integrated the routing table lookup algorithms in Linux kernel (C).
- Developed a high-level synthesis tool that generates synthesizable Verilog from C code (C, Verilog).
- Generated the Verilog implementation of routing table lookup algorithms using high-level synthesis tools. Synthesized the Verilog using OpenROAD EDA.
- Implemented router-assisted TCP such as RCP, XCP and NC-TCP in Linux kernel (C).
- Developed a GStreamer based video streaming application (C).
- Developed several experimental network topologies using Mininet (Python).

Software Development Intern, inConatact
Columbus, OH, USA (May, 2015 - Aug, 2015)

- Implemented a call dispatching mechanism of call centers where incoming calls are assigned to agents based on various criteria and skill metrics of the agents.(C#)
- Implemented an interval tree to make an call assignment efficient instead of searching all the agents.

Software Development Intern, RightRez
Bloomington, IN, USA (May, 2014 - Aug, 2014)

- Implemented a flight search (BFS and A* search) in a graph of 3 million flight routes (C#)
- Implemented several heuristics that reduced that searching time from 30 minutes to few seconds.
- Integrated Sabre webservice to implement seat map for airlines. (C#)

Senior Software Engineer, GenWeb2
Dhaka, Bangladesh (Sep, 2012 - Jul, 2013)

- Implemented a 3D simulator of a CNC machine. (C++, OpenGL, Qt)
- Calculated the minimum number of points to draw an arc based on the arc length. It reduced the CPU and memory consumption by almost 90%
- Developed a backend of a mobile application that is used for charging electric cars. (Java, Postgresql)

Software Engineer, KB Group
Dhaka, Bangladesh (Apr, 2010 - Sep, 2011)

- Implemented an end-to-end ticketing system for box offices. (C#, SQL Server)
- Integrated payment gateways to e-commerce and box office applications. (C++, COM, Classic ASP, SQL Server).

Software Engineer, Arista Enterprises

Dhaka, Bangladesh (Apr, 2009 - Mar, 2010)

- Implemented an end-to-end airline ticket booking system (C#, ASP.NET, SQL Server, HTML, CSS, JavaScript).

Software Engineer, SDSL

Dhaka, Bangladesh (Feb, 2008 - Mar, 2009)

- Developed a map navigator for feature phones and windows mobile with AfriGIS map. Worked on zooming, panning and caching of map tiles and data. (J2ME, C#).

PUBLICATIONS

- **MD Iftakharul Islam**, Javed I Khan "SAIL Based FIB Lookup in a Programmable Pipeline Based Linux Router." IEEE High Performance Switching and Routing (HPSR), 2019.
- **MD Iftakharul Islam**, Javed I Khan "Leveraging Domino to Implement RCP in a Stateful Programmable Pipeline." IEEE High Performance Switching and Routing (HPSR), 2019.
- **MD Iftakharul Islam**, Javed I Khan "A Network-centric TCP for Interactive Video Delivery Networks (VDN)." IEEE International Conference on Network Protocols (ICNP), 2017.
- **MD Iftakharul Islam**, Javed I Khan "Video Splicing Techniques for P2P Video Streaming." IEEE ICDCS workshop on Computer and Networking Experimental Research using Testbeds (CNERT), 2015.

SERVICES

- Reviewer of IEEE Journal of Selected Area of Communication (JSAC).
- Reviewer of Computer Networks, Elsevier.
- Shadow reviewer of Network and Computer Applications, Elsevier.
- TPC member of International Journal of Computing and Digital Systems
- TPC member of International Journal of Reconfigurable and Embedded Systems

Teaching

- Instructor of CS-III (Programming Pattern) from 2020-2021
- Lab instructor of CS-III (Programming Pattern) from 2017-2020
- Lab instructor of CS-I (Procedural and Object-Oriented Programming) from 2016-2017