A K M MUBASHWIR ALAM

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Work Experience	- Software Engineering Intern, **RingCentral Inc.**, USA	[Jun 2021 - Present]
	- Graduate Research Assistant, **Marquette University**, USA	[Aug 2020 - Present]
	- Graduate Research Assistant, **Wright State University**, USA	[Aug 2018 - Jul 2020]
	- Software Engineer II, **Samsung Electronics**, Dhaka, BD	[Feb 2013 - Aug 2018]

Education

Ph.D. in Computer Science   [Aug 2018 - Present]
Marquette University, USA
Research Interest: Privacy Preserving Cloud Computing, which includes secure computation with SGX, secure database, data analytics and machine learning.

B.Sc., Computer Science and Engineering   [Jan 2009 - Dec 2012]
American International University Bangladesh (AIUB), BD
Thesis: 'A Dynamic Programming approach to solve Minimum Rectilinear Steiner Tree'
CGPA: **3.75** out of 4.00

Publication

- AKM Mubashwir Alam, Sagar Sharma, and Keke Chen, "SGX-MR: Regulating Dataflows for Protecting Access Patterns of Data-Intensive SGX Applications", Proceedings of Privacy Enhancing Technologies (PoPETs), 2021

- Sagar Sharma, AKM Mubashwir Alam, and Keke Chen, "Image Disguising for Protecting Data and Model Confidentiality in Outsourced Deep Learning", IEEE CLOUD Conference, 2021

- T.I. Chowdhury, M.M. Rahman, AKM Mubashwir Alam, . . . , Shahriar Rizwan, "A multi-step approach for RSSi-based distance estimation using smartphones", Networking Systems and Security (NSysS), 2015

Patent

- System for secure, low cost and efficient indoor positioning and navigation system of Internet of Things objects, Md.Mahbubur Rahman, AKM Mubashwir Alam, Md. Tawhidul Islam Chowdhury, . . . , Mohammad Anwarul Hoque, Accepted for US Patent. Samsung Electronics Co., Ltd

Projects

- **Debug Log Collector for RingCentral Telecommunication**   [2021]
  - Build services for scalable, high-performance architecture, which handles terabytes of log data.
  - Build proprietary components and utilize open-source technologies and stacks.
  - Programming Language : **C/C++, Python**

- **Secure outsourced data analytics with SGX**   [2019-2021]
  - Developed MapReduce F/W for SGX
  - Developed mitigation methods for access pattern based side channel attacks
  - Programming Language : **C/C++**

- **Samsung Galaxy Watch Manager** *(iOS)*   [2016-2018]
  - R&D Works to solve supporting multiple Gears problem for Wearable SDK
  - Developed Connection Module of Gear S, Gear Fit and IconX
  - Programming Language : **Objective-C**

- **Distance Estimation using Ultra sound and BLE in Raspberry Pi**   [2014-2015]
  - Design an Algorithm to estimate distance using Ultrasound and BLE communication
  - Programming Language: **C/C++, Java**

- **RSSI-based Proximity Service**   [2013-2014]
  - Analyze RSSI based distance models approach
  - Development of Bluetooth Classic/Low Energy features
  - Programming Language: **Java, Android**

Skills

- **Language**: C/C++, Java, Python, JavaScript, Objective C
- **Technologies**: TEE, Intel SGX, Hadoop, Spark, RocksDB, MySQL, Android, iOS

Awards & Achievements

- **Dr. Anwarul Abedin Leadership Award for Programming**, 13th Convocation, AIUB, 2013
- **Professional Level** in **Software Capability Test**, 2014 at Samsung Electronics (**Global**).
- **2 times Icon Of The Month Award** at Samsung Electronics.

Problem Solving

- Solved a total of 1000+ competitive problems on *LightOJ*, *UVa*, *Codeforces* and other online judges.
- Participated in National and International level Programming Contests during 2010-2012.