# Resume of A K M MUBASHWIR ALAM

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Education

Doctor of Philosophy(Ph.D.) in Computer Science

[Fall 2018 - Current]

Wright State University (WSU), Ohio, USA

Research Interest: System and Software Privacy, Mitigating Side-Channel Attacks on SGX Applications

B.Sc., Computer Science and Engineering

[December 2012]

American International University Bangladesh (AIUB), Dhaka, Bangladesh Thesis: 'A Dynamic Programming approach to solve Minimum Rectilinear Steiner Tree'

CGPA: **3.75** out of 4.00

Work Experience - Graduate Research Assistant, Wright State University [Aug 2018 - Current] - Lead Engineer, Samsung RD Bangladesh [Mar 2017 - Aug 2018] - Senior Software Engineer, Samsung RD Bangladesh [Mar 2015 - Mar 2017]

- Software Engineer, Samsung RD Bangladesh [Feb 2013 - Mar 2015]

**Projects** 

### • Secure Light Weight MapReduce framework for SGX Enclave

- Research on Mitigating Side Channel Attacks on SGX Application
- Developed MapReduce F/W on SGX to perform data oblivious operations
- Key Research: Hiding Access Pattern, Side Channel Attacks and Page Faults
- Programming Language : C/C++

## • Samsung Galaxy Watch Manager

- R&D Works to solve supporting multiple Gears problem for Wearable SDK
- Developed Connection Module of Gear S, Gear Fit and IconX
- Development of Weather Module and other features
- Programming Language : **Objective-C**

### Distance Estimation using Ultra sound and BLE in Raspberry Pi

- Design an Algorithm to estimate distance using Ultrasound and BLE communication
- Develop BLE communication using linux D-Bus API
- Programming Language: C/C++, Java

### RSSI-based Proximity Service

- Analyze RSSI based distance models and apply curve fitting approach
- Development of Bluetooth Classic/Low Energy features
- Programming Language: Java, Android

Skills

• Academic

In depth knowledge in Data structures, Algorithms, Computational Geometry, Number Theory, Graph Theory, Network Flows, Probability Theory, NP Completeness, Branch and Bound Techniques.

C/C++, Objective C, Java, Python, R, Octave, C#, MySQL, Oracle, PHP

Academic Awards & Other Achievements

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

Patent

Md. Mahbubur Rahman, A. K. M. Mubashwir Alam, Sadre Ala Parvez, Abul Basher, Md. Tawhidul Islam Chowdhury, Abusayeed Alam, Mohammad Anwarul Hoque, 'System for secure, low cost and efficient indoor positioning and navigation system of Internet of Things objects', Accepted for US Patent. Samsung Electronics Co., Ltd

Publication

T.I. Chowdhury, M.M. Rahman, Sadre-Ala Parvez, A.K.M. M. Alam, Abul Basher, Abusayeed Alam, Shahriar Rizwan, 'A multi-step approach for RSSi-based distance estimation using smartphones', Networking Systems and Security (NSysS), 2015 International Conference, ISBN: 978-1-4799-8126-7

Problem Solving

*LightOJ* - Solved more than **350** problems out of **400**+ problems in LightOJ.

UVa - Solved more than 340 problems in Valladolid Online Judge.

Codeforces - Maximum rating is Expert 1624 (Blue).

**Programming** Contest Experience

- □ NATIONAL CONTEST

  - Rank 5<sup>th</sup> HSTU IUPC 2010, HSTU, Team: AIUB KINGKORTOBBOBIMUR
    Rank 9<sup>th</sup> Quazi Azher Ali Programming Contest 2011, BU, Team: AIUB BIPROTEEP
    Rank 10<sup>th</sup> IUT IUPC 2011, IUT, HSTU, Team: AIUB SINGULARITY
- □ OTHERS
  - Champion, Intra University Programming Contest (Individual) 2009, AIUB
  - Runner-up, Intra University Programming Contest (Team) 2010, AIUB
  - Problem Setter and Judge: Intra AIUB Programming Contest 2011, 2012