

Sazzadur Rahaman

PHD CANDIDATE · SECURITY ENTHUSIAST

Department of Computer Science, Virginia Tech

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Summary

PhD Student in Computer Science in Virginia Tech, interested in **Cryptography, Computer and Cyber Security**. **3+ years of industry experience** in OOP, AOP and soul **JavaEE technologies**, Smart card and payment based solutions. Founding member and initiator of JUG BD (Java User Group, Bangladesh). **Speaker in JavaOne-2015**, JUG BD Meetup (3.0 & 5.0). Answered 165+ questions with **4000+ reputation** in stackoverflow. Authored 2 technical papers.

Education

VT (Virginia Tech)

Blacksburg, VA

PHD CANDIDATE (2nd YEAR) IN COMPUTER SCIENCE

2015 - PRESENT

- CGPA: 3.94/4, Advisor: Danfeng (Daphne) Yao.
- **Research Focus:** Minimizing the gap between theory and the applications of cryptographic schemes (e.g., Group signatures, Anonymous Credentials, Functional encryption, etc.) for wide adaptation. Leveraging machine learning techniques (e.g., SVM, Multinomial Logistic Regression, Multivariate Normal Classifier, Deep Learning, etc.) to better understand the privacy implications in modern era of computing.

BUET (Bangladesh University of Engineering and Technology)

Dhaka, Bangladesh

B.S. IN COMPUTER SCIENCE AND ENGINEERING

2006 - 2010

- CGPA: 3.64/4, Advisor: Md. Saidur Rahman.

Experience

Computer Science, Virginia Tech

Blacksburg, VA

GRADUATE RESEARCH ASSISTANT [PROF. DANFENG (DAPHNE) YAO]

Aug. 2015 - PRESENT

- **GroupSense:** Building a privacy preserving highly scalable crowdsensing system using a new VLR-based group signature scheme.
- **Crypto Engineering:** Building tool for automating the discovery of different crypto-vulnerabilities in high impact software systems.
- **I know what are you doing:** Detecting “high-level” user actions by looking into “low-level” system call traces.

Kona Software Lab Ltd

Dhaka, Bangladesh

SOFTWARE ENGINEER AND SCRUMMASTER

Mar. 2014 - Jul. 2015

- Significant contribution in architecture level design and development of crucial products (e.g., Kona Pay [news], Kona HCE, TSM etc.).
- Read various specs for smart card and secured solutions (GlobalPlatform, ISO/IEC, ETSI, Visa, MasterCard, American Express, EMVCo, etc.) and applied them to build commercial products.
- Significant contribution in standardizing software engineering practices and tools effectively throughout the organization.

Therap Services, LLC

Dhaka, Bangladesh

SOFTWARE ENGINEER

Apr. 2012 - Feb. 2014

- Worked in different roles: feature implementation, realtime system performance monitoring, analysis and optimization to peer code reviewing.
- Wrote utility framework for generic spread sheet generation, which helped to cut down around 90% of the related boilerplate codes.

Technical Skill

- **PLs:** Java, Python, Matlab, C, C++, Javascript, PHP.
- **Frameworks:** Spring, Hibernate, JSF, JPA, CDI, EJB.
- **Databases:** HSQL DB, MySql, Oracle.
- **Distributed DB/Frameworks:** MongoDB, Cassandra, Hadoop, Spark.
- **Dev Tools:** Intelij IDEA, Netbeans, Eclipse, PyCharm, Git, SVN, Mercurial.

Notable Presentations

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| 2016 | “GroupSense: Scalable Crowdsensing with Privacy and Accountability”, (Poster) USENIX Security. | Austin, TX |
| 2015 | “Smart Card to the Cloud for Convenient, Secured NFC Payment”, JavaOne, 2015. | San Francisco, CA |
| 2015 | “Languages in JVM Ecosystem and The future of JVM”, Java User Group, Bangladesh (Meetup 5.0). | Dhaka, Bangladesh |
| 2014 | “Antibandwidth problem for itchy caterpillar”, Int. Conf. on Informatics, Electronics & Vision (ICIEV). | Dhaka, Bangladesh |

Reference

Available upon request.