# Sajid Rahman

Gainesville, FL 32653

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### Profile Summary

- Proven skills in designing and carrying out research studies, analyzing results both qualitatively and quantitatively, scrutinizing output, and improving methods.
- 2+ years of industry experience as a Data Scientist in **Cybersecurity** industry.
- Research interests: Cybersecurity, Deep Learning, Human-centered Security and Privacy Design.

### Skills\_

Programming Languages	Java, C/C++, Python, Elixir, C#, R
Frameworks	Spring, Grails, JavaEE(Servlet/JSP), Hibernate
Web/Mobile Technologies	REST/SOAP, JSON/XML, Microservice Design, PHP, Node.js, Android
<b>Big Data Technologies</b>	Apache Hadoop, Apache Pig
Machine Learning Tools	PyTorch, TensorFlow, Keras, Scikit-learn, Pandas
Pen-testing Tools	Metasploit, Kali Linux, Windbg
Database	BigQuery, Athena, MySQL, MS-SQL, Oracle, PostgresSQL

### **Research and Professional Experience**

#### **Google Cloud Security**

DATA SCIENTIST

- Apply expertise in machine learning, statistical modeling, and data analysis to solve complex cybersecurity challenges and improve overall security posture.
- Collaborate with security intelligence experts and engineers to build and develop next generation threat intelligence platform. This platformt leverages machine learning to enable security practitioners taking proactive security measures and informed decision-making by prioritizing threats.
- Present research findings and technical solutions to both technical and non-technical audiences and internal stakeholders.
- Stay abreast of the latest advancements in cloud security and AI, continuously improving skills and knowledge through self-study and professional development.

#### Florida Institute for Cybersecurity Research (FICS)

**GRADUATE RESEARCH ASSISTANT** 

- Conducted independent research on mobile app privacy and security, culminating in several publications and PhD dissertation on data privacy practice and disclosure in mobile app ecosystem.
- Designed and executed research studies, including threat modeling, data analysis, and behavioral analysis of Android apps and third-party libraries.
- Proficient in qualitative analysis, statistical modeling, data mining, and natural language processing.
- Demonstrated ability to analyze complex data, draw meaningful conclusions, and communicate findings effectively through publications and presentations.

#### Avast, Inc.

Research Intern, Avast Research Lab

- Conducted a large-scale Android app privacy analysis to find gaps in *declared* privacy policy with *actual* app behavior of private data collection and sharing.
- Devised a mapping between *dangerous* Android permissions and privacy policy.
- Proposed visual indicator to support end-users making informed decisions (e.g., installing/uninstalling/switching apps) about App privacy.

#### FireEye, Inc.

Research Intern, Data Science Team

- Researched into the tactics, techniques, and procedures being employed by adversaries over social media platforms to spread disinformation.
- Demonstrated transfer learning on language model by fine-tuning GPT-2 to generate synthetic disinformation data for simulation and then
  detect disinformation social media posts.
- The project was featured on WIRED and FireEye Blog.

Muhammad Sajidur Rahman · Resume

Emeryville, CA

Remote

2017 - 2022

2022 - present

May 2020 - August 2020

University of Florida, Gainesville

Reston, VA

May 2019 - Aug. 2019

#### **Cyber Security Lab**

**GRADUATE RESEARCH ASSISTANT** 

- Remodeled and optimized functionality on Firefox SSL extension launcher for data logging and proxy setting for SSL warning study.
- Conducted semi-structured interviews, synthesized survey responses, and interpreted interview transcripts to elicit consumer usage patterns and behavior of different payment methods.
- Applied topic modeling on the Stack Overflow dataset to gauge software developers' security perception.

#### Progoti Systems Limited (FinTech company)

SENIOR SOFTWARE ENGINEER

- · Orchestrated the engineering and architecture of the core service engine for SureCash Mobile Financial Service as a SaaS model which provides money deposit, withdrawal, and P2P and B2B financial transactions with seamless user experience.
- Headed several major milestones and new product features including three large bank integration with SureCash payment service, implementing and operationalizing USSD based push-pull service to ensure secure and seamless money withdrawal service from either Human or ATM agents, rolling out third-party utility bill payment service, to name a few.

#### **Prime Bank Limited**

INFORMATION TECHNOLOGY ENGINEER

- Implemented automated ETL service to run at the end of daily business hours to fetch data from core-banking system's data archive and populate MIS database for business analytics.
- Designed and developed a centralized MIS web portal with secure, role-based access control for various bank divisions (e.g., corporate/retail banking/credit-card) to facilitate real-time financial report generation and analysis from the current and historical dataset. This system increases the efficiency of these divisions in decision-making and policy planning by over 50%.

### Education

University of Florida	Gainesville, FL	
PhD in Computer Science	2017 - 2022	
<ul> <li>PhD Thesis: Combining Human Expertise with Automated Systems: Identifying Inconsistencies of First and Third-Party Privacy Disclosures in the Mobile App Ecosystem.</li> </ul>		
Kansas State University	Manhattan, KS	
M.S. IN COMPUTER SCIENCE	2017	
• MS Thesis: An Empirical Case Study on Stack Overflow to Explore Developers' Security Challenges.		
Bangladesh University of Engineering and Technology (BUET)	Dhaka, Bangladesh	
B.S. in Computer Science and Engineering	2011	
• Undergrad Thesis: Location aware fuzzy logic based decision making of vertical handoff in heterogeneous wireless networks.		

## **Publications**

- "PermPress: Machine Learning-Based Pipeline to Evaluate Permissions in App Privacy Policies." In Journal of IEEE Access.
- "SOURCERER: Developer-Driven Security Testing Framework for Android Apps." In ASEW'21.
- "Beyond L<sub>n</sub> clipping: Equalization based Psychoacoustic Attacks against ASRs." In ACML'21.
- "Hear "No Evil", See "Kenansville": Efficient and Transferable Black-Box Attacks on Speech Recognition and Voice Identification Systems" In Proceedings of the 2021 IEEE Symposium on Security and Privacy.
- "Combating Social Media Information Operations with Neural Language Models" In 2020 USENIX Security and AI Networking Summit.
- "Of Ulti, 'hajano', and "Matachetar otanetak datam": Exploring Local Practices of Exchanging Confidential and Sensitive Information in Urban Bangladesh" In Proceedings of the 22nd ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'19).
- "API Blindspots: Why Experienced Developers Write Vulnerable Code." In Proceedings of the 14th Symposium on Usable Privacy and Security (SOUPS'18).
- "An Exploratory Study of User Perceptions of Payment Methods in the UK and the US." In Proceedings of the 10th NDSS Workshop on Usable Security (USEC'16).
- "Smart Blood Query: A Novel Mobile Phone-Based Privacy-Aware Blood Donor Recruitment and Management System for Developing Regions," In Proceedings of 2011 IEEE Workshops of International Conference on Advanced Information Networking and Applications.

#### Aug. 2014 - Dec. 2016

Kansas State University

Dhaka, Bangladesh Mar. 2012 - Feb. 2014

Dhaka, Bangladesh

Feb. 2011 - Feb. 2012