

Md Mahbub Alam

mahbub.alam@tamu.edu ♦ [linkedin.com/alam-mahbub](https://www.linkedin.com/in/alam-mahbub) ♦ github.com/itsmahbub

Research Interests

Cybersecurity, Cognitive Security, AI Security.

Education

Texas A&M University Ph.D. in Computer Science	August 2024 - Present [Transfer In] College Station, TX
Syracuse University Ph.D. in Computer/Information Science and Engineering	August 2023 - May 2024 [Transfer Out] Syracuse, NY
Bangladesh University of Engineering and Technology (BUET) B.Sc. in Computer Science and Engineering <i>CGPA: 3.57 (out of 4.00)</i>	Feb 2013 - Sep 2017 Dhaka, Bangladesh

Publications

M. Alam, S. Zhang, E. Rodriguez, A.J. Nafis, and E. Hoque. “iConPAL: LLM-guided Policy Authoring Assistant for Configuring IoT Defenses.” *2024 IEEE Secure Development Conference (SecDev)*. IEEE, 2024.

Work Experience

Texas A&M University Graduate Assistant - Research, SPIES Research Lab	August 2024 - Present College Station, TX
Syracuse University Graduate Research Assistant Implemented Text-to-IoT policy translator with LLM, integrated grammar parser for validation, and created input generator using Z3 Theorem Prover.	August 2023 - May 2024 Syracuse, NY
Intuitive Web Solutions LLC (BriteCore) Senior Site Reliability Engineer (remote) Enhanced application monitoring, automated system healing, resolved incidents, implemented security practices, and optimized resource allocation in batch job processing. Developed service deployment infrastructure as code on AWS, automated database upgrade, developed CI/CD pipelines.	Redwood City, CA Aug 2019 - Jul 2023
Field Information Solutions Ltd Software Engineer Developed API endpoints and refactored the existing codebase to enhance code reusability, supporting both web and mobile applications for a last-mile sales distribution application.	Dhaka, Bangladesh May 2018 - Jul 2019
Reve Systems Junior Software Engineer Created a source code generator using Java and Apache Velocity template engine, ensuring consistent code structure and style.	Dhaka, Bangladesh Oct 2017 - Apr 2018

Undergraduate Thesis

Solving Sudoku as a Constraint Satisfaction Problem and Analyzing Effects of Constraint Ordering

The problem of solving the Sudoku puzzle is an NP-Complete problem. We formulated it as a Constraint Satisfaction Problem and solved using constraint programming. In this thesis, we introduced constraint ordering based on different criteria to determine the effects of constraint ordering. Our experiment result shows that ordering the constraints based on the number of clues gives better resolution time than unordered constraints.

Supervised by [Abu Wasif](#), Assistant Professor, Department of CSE, BUET, wasif@cse.buet.ac.bd

Technical Skills

Programming Languages	Python, JavaScript, C, C++, Java
Database	MySQL, PostgreSQL, DynamoDB, Oracle
Framework	Django, Flask, VueJS
Container Orchestration	Docker, Kubernetes, Elastic Container Service
Cloud	Amazon Web Services (AWS)
Others	Linux administration, Terraform, SaltStack, Git, Bash Scripting

Licenses & Certifications

CKA: Certified Kubernetes Administrator <i>Issued by</i> The Linux Foundation	Aug 2022 - Aug 2025 See Credential
LFCS: Linux Foundation Certified Systems Administrator <i>Issued by</i> The Linux Foundation	Jun 2022 - Jun 2025 See Credential
AWS Certified Solutions Architect - Professional <i>Issued by</i> Amazon Web Services Training and Certification	Mar 2022 - Mar 2025 See Credential
AWS Certified DevOps Engineer - Professional <i>Issued by</i> Amazon Web Services Training and Certification	Oct 2021 - Oct 2024 See Credential

Awards

2nd Runner-up in Software Project Show at the **2nd International Conference on Networking Systems and Security, 2016**