

Yeaseen Arafat

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DIALECTIC INTERESTS

- **Confluence of Computing Systems, Software plus Cyber Security**, software vetting; bug discovery; fuzzing compilers, decompilers and transpilers; vulnerability triage; program analysis: static and dynamic; return-oriented programming; reverse engineering; reconnaissance; vulnerability scanning; penetration testing attack; intrusion detection system
- **Onto Secure Systems**, privilege separation; capabilities escalation; input sanitization; code obfuscation; ambiguous translation; containerization; sandboxing; virtualization;
- **CTFs & Wargames**

SCHOLARLY HIGHLIGHTS

🎓 The University of Utah

PhD in Computer Science

August 2023 – Present

Supervisor: Dr. Stefan Nagy

🎓 Bangladesh University of Engineering and Technology (BUET)

B.Sc. Engg. in Computer Science and Engineering

February 2015 – April 2019

Supervisor: Dr. A.K.M. Ashikur Rahman

OCCUPATIONAL VENTURES

Graduate Research Fellow

Kahlert School of Computing, The University of Utah

August 2023 – Present

Utah, USA

Lecturer

Computer Science and Engineering, Southeast University

June 2019 – July 2023(On Leave)

Dhaka, Bangladesh

RESEARCH EXPERIENCES

A Machine Learning Approach for Protecting Wireless Networks

B.Sc. Thesis

Against Virtual Jamming Based Denial of Service (DoS) Attacks [Thesis]

Under the supervision of Dr. A.K.M. Ashikur Rahman, Dept. of CSE, BUET

PUBLICATIONS

Conference:

- **Yeaseen Arafat**, Kazi Samin Yeaser, Ashikur Rahman, Arnab Dasgupta, “A Machine Learning based Approach for Protecting Wireless Networks Against DoS Attacks”, in Proceedings of the 7th International Conference on Networking, Systems and Security (7th NSysS 2020), December 22-24, 2020, Dhaka, Bangladesh. (Acceptance Rate: 29%) Publisher: ACM, New York, NY, USA, 126-132. [doi]

NOTABLE ACADEMIC ENDEAVOURS

Instagram : Social media | MERN Stack

🌐 [GitHub](#)

- A social media app inspired by Instagram.

A subset of C compiler | Flex, Bison, Yacc

🌐 [GitHub](#)

- The compiler converts C files all the way to intermediate code generation.

ADD Nachos, OS_Features | C++, Make, Nachos

🌐 [GitHub](#)

- This OS-build project is an extension of Nachos, a UNIX-like OS.
- The vanilla Nachos is extended by basic multi-programming and Virtual Memory Manager.

ML projects | Python

🌐 [GitHub](#)

- Scratch-implementation of pattern recognition models and some renowned ML models
- Decision Tree(ID3) with AdaBoost, Perceptrons, Recommender
- Artificial Neural Network, Channel Equalizer

EventPlanner | *MERNG Stack*

 [GitHub](#)

- This SPA is for planning events and tracking event logs.

Angry Birds | *C, iGraphics*

 [GitHub](#)


- A casual puzzle video game based on an Android game of the same name.

Play & Learn : All about cognition | *Android Native*

 [GitHub](#)


- A simple Android app for children on the spectrum, by which they can learn through play.

DDD: Drunk Driver Detector | *Node ESP8266, MQ-5, DC Motor, LCD*

 [YouTube](#)

- This project aims to detect any alcoholic driver to avoid unnecessary accidents.

Amazon Echo : Home automation | *Raspberry Pi 3, Amazon Alexa, Node ESP8266*

 [YouTube](#)

- Voice assistant for users to remotely turn on and off electric devices.

AWARD & HONORS

- Graduate Fellowship at The University of Utah (2023)
- University Merit Scholarship from BUET (2015-2019)
- Junior Government Scholarship, Chittagong Education Board, Bangladesh (2009)

ACTIVITIES

- **Organizing Committee Member:** ACM ICPC ASIA Regional, Dhaka Site 2019
- **Member:** Cybersecurity Club, University of Utah [[utahsec](#)]

TEACHING EXPERIENCES

Southeast University, Computer and Systems Engineering Department

Dhaka, Bangladesh
2019 – 2023

Lecturer

- **CSE-4013 : Computer Graphics and Animation**
- **CSE-3031 : Operating Systems**
- **CSE-161 : Programming Language C**
- **CSE-4011 : Computer Networking**
- **CSE-3014 : Microprocessor Design & Assembly Language**

TECHNICAL APTITUDE

Programming Languages: C/C++, Python, Java, Wasm, Assembly (Intel x86, MIPS)

Security Tools: AFL, AFL++, Burp Suite, sqlmap, Havij, Snort

Data Science Libraries: Tensorflow, Keras, NumPy, scikit-learn, Pandas, Matplotlib

Frameworks: React, Node.js, Express.js, Android Native, JavaFX, Java Swing

Scripting & Modeling: \LaTeX , HTML, JavaScript, TypeScript, Shell Script, UML, ER Diagram

Blockchain tech: Ethereum, Smart Contracts, Solidity, Truffle Suite

DevOps & PaaS: GitHub, Docker, REST API, GraphQL, Heroku

Other tools: Nachos, Makefile, Git, Flex, Bison, YACC, OpenGL, iGraphics

Database: MongoDB, Neo4j, Oracle SQL, MySQL

Networking Tools: Cisco packet Tracer, ns-2

OS: Kali Linux, Ubuntu, Mac, Raspbian

Embedded Systems: Logisim, Arduino, Node MCU, ATMega32, RaspberryPi 3, AVR micro-controllers

PROFESSIONAL ENDORSEMENTS

Dr. Stefan Nagy

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Kahlert School of Computing
The University of Utah
PhD Supervisor
Email: snagy@cs.utah.edu

Dr. A.K.M. Ashikur Rahman

Professor
Department of CSE
Bangladesh University of Engineering & Tehcnology
B.Sc. Thesis Supervisor
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