

Sayed Erfan Arefin

PHD STUDENT, COMPUTER SCIENCE, TEXAS TECH UNIVERSITY

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Education

Texas Tech University

PHD IN COMPUTER SCIENCE

- CGPA: 3.86 out of 4
- Advisor: Dr. Abdul Serwadda
- Concentration in Cyber Security

Lubbock, Texas

2020 Spring - present

BRAC University

MASTERS OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING

- CGPA: 3.32 out of 4
- Thesis Title: IoT in Smart-homes and Smart-cities using FOG, NDN and Trust Management System

Dhaka, Bangladesh

BRAC University

BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING

- CGPA: 3.12 out of 4
- Thesis Title: Fog based service oriented IoT infrastructure

Dhaka, Bangladesh

Publication

Deep Neural Exposure: You Can Run, But Not Hide Your Neural Network Architecture!

IH&MMSEC 21: PROCEEDINGS OF THE 2021 ACM WORKSHOP ON INFORMATION HIDING AND MULTIMEDIA SECURITY

- S. E. Arefin and A. Serwadda
- ACM, DOI: <https://doi.org/10.1145/3437880.3460415>

Brussels, Belgium

2021

Agent Based Fog Architecture using NDN and Trust Management for IoT

IEEE TENCON

- S. E. Arefin, T. Ashrafi Heya and A. Chakrabarty
- IEEE, DOI: 10.1109/TENCON.2019.8929709

Kerala, India

2019

Real-life Implementation of Internet of Robotic Things Using 5 DoF Heterogeneous Robotic Arm

2018 JOINT 7TH INTERNATIONAL CONFERENCE ON INFORMATICS, ELECTRONICS & VISION (ICIEV) AND 2018 2ND INTERNATIONAL CONFERENCE ON IMAGING, VISION & PATTERN RECOGNITION (ICIVPR)

- S. E. Arefin, T. Ashrafi Heya and J. Uddin
- IEEE, DOI: 10.1109/ICIEV.2018.8641019

Kitakyushu, Japan

2018

Service Based FOG Computing Model for IoT

IEEE 3RD INTERNATIONAL CONFERENCE ON COLLABORATION AND INTERNET COMPUTING (CIC)

- T. H. Ashrafi, M. A. Hossain, S. E. Arefin, K. D. J. Das and A. Chakrabarty
- IEEE DOI: 10.1109/CIC.2017.00031 pp. 163-172.

San Jose, CA

2017

A Novel Extended Cloud Based Approach for Internet of Things

*Studies in Big Data book series
(SBD, volume 39), Springer*

MISHRA B., DAS H., DEHURI S., JAGADEV A. (EDS) CLOUD COMPUTING FOR OPTIMIZATION: FOUNDATIONS, APPLICATIONS, AND CHALLENGES. STUDIES IN BIG DATA, VOL 39.

2018

- T. H. Ashrafi, M. A. Hossain, S. E. Arefin, K. D. J. Das and A. Chakrabarty
- Springer, DOI: https://doi.org/10.1007/978-3-319-73676-1_12

IoT Infrastructure: Fog Computing Surpasses Cloud Computing

Springer, Singapore

HU YC., TIWARI S., MISHRA K., TRIVEDI M. (EDS) INTELLIGENT COMMUNICATION AND COMPUTATIONAL TECHNOLOGIES. LECTURE NOTES IN NETWORKS AND SYSTEMS, VOL 19.

2017

- T. H. Ashrafi, M. A. Hossain, S. E. Arefin, K. D. J. Das and A. Chakrabarty
- Springer, DOI: https://doi.org/10.1007/978-981-10-5523-2_5

Fog Based Distributed IoT Infrastructure

Churchill College, Cambridge, UK

SECOND INTERNATIONAL CONFERENCE ON INTERNET OF THINGS AND CLOUD COMPUTING (ICC)

2016

- T. H. Ashrafi, S. E. Arefin, K. D. J. Das, M. A. Hossain and A. Chakrabarty
- ACM DOI 10.1145/3018896.3036365

Image Processing Based Indoor Localization System for Assisting Visually Impaired People

Wuhan, China

UBIQUITOUS POSITIONING, INDOOR NAVIGATION AND LOCATION-BASED SERVICES (UPINLBS)

2018

- T. A. Heya, S. E. Arefin, A. Chakrabarty and M. Alam
- IEEE DOI: 10.1109/UPINLBS.2018.8559936

Indoor localization system for assisting visually impaired people

Cox's Bazar, Bangladesh

INTERNATIONAL CONFERENCE ON ELECTRICAL, COMPUTER AND COMMUNICATION ENGINEERING (ECCE)

2017

- M. M. Alam, S. E. Arefin, M. A. Alim, S. I. Adib and M. A. Rahman
- IEEE, DOI: 10.1109/ECACE.2017.7912927

Comparative analysis of computation models for IoT: Distributed fog vs. conventional cloud

Dhaka, Bangladesh

4TH INTERNATIONAL CONFERENCE ON ADVANCES IN ELECTRICAL ENGINEERING (ICAEE)

2017

- T. A. Heya, S. E. Arefin, M. A. Hossain and A. Chakrabarty
- IEEE, pp. 760-765. DOI: 10.1109/ICAEE.2017.8255456

Experience

Texas Tech University

Lubbock, Texas

GPTI TEACHING ASSISTANT

Aug. 2020 - Present

- CS-1412: Programming Principles II: C (Spring 2021 and Spring 2022)
- CS-2413: Data Structures (Fall 2021)
- CS-2350: Computer Organization and Assembly Language Programming (Summer 2021)
- CS-4392: Computer Networks (Fall 2020)
- CS-4366 (Fall 2020)

Dashroad

Remote job - Dubai, UAE

BACKEND ENGINEER

Feb. 2019 - Exp. May. 2019

- MERN stack based backend development
- Machine learning api development using Azure ML Studio (Price prediction system for Tesla Cars)

Sweet iTech

Full time job - Dhaka, Bangladesh

SOFTWARE ENGINEER

Feb. 2018 - Aug. 2018

- Spring Boot backend development
- Android app development

Careershub Limited

WEB DEVELOPER

- Developed and maintained websites
- careershubbangladesh.com.au

Full time job - Dhaka, Bangladesh |

Head office: Melbourne, Australia

Nov. 2017 - Jan. 2018

Oluha Group

APP DEVELOPER

- Developed Android based social media app which used emotion detection over the cloud

Remote job - Virginia, US

Jul. 2017 - Sep. 2017

Anontech

APP DEVELOPER

- Developed Android & Windows apps.

Part time job - Dhaka, Bangladesh

Jul. 2016 - Aug. 2016

Certifications & Awards

2021	International Teaching Assistant (ITA) Approved , Texas Tech University	Lubbock, Texas
2018	Scholarship , Linux Foundation conference KubeCon + CloudNativeCon	CPH, Denmark
2019	Scholarship , Linux Foundation conference Linux Security Summit	San Diego, USA
2017	Startup Funding , Microsoft Bizspark Became a part of Bizspark on behalf of Bulb Inc	Dhaka, BD
2014	Microsoft Technology Associate (MTA) , Software Development Fundamentals, Microsoft Certification number: F144-9204	Dhaka, BD
2015	Runners Up , Software Development category at AUST Engenius, Ahsanullah University of Science & Technology	Dhaka, BD
2014	Winner , National Hackathon - Me and my team won the "Non Communicable Diseases" Category. We developed an system which will keep track of non communicable diseases and will notify/alert if there is any risk of having a disease by using Machine Learning. Funded by, ICT Ministry of Bangladesh	Dhaka, BD

Research Interests & Skills

RESEARCH INTERESTS

- Cyber Security
- Internet of Things (IoT)
- Robotics

ACADEMIC AND RESEARCH SKILLS

- Time series analysis
- Convolutional Neural Networks and classifications
- Anaconda and python ML packages
- LaTeX tools (MikTex, Texmaker), Overleaf
- Micro-controller programming with C and C++

SOFTWARE DEVELOPMENT SKILLS

- Android development
- Vuejs frontend web development
- Spring Boot backend development
- CI/CD tools: Docker, Gitlab CI, Github, Circle CI, heroku
- Cloud environments: Microsoft Azure, Digital Ocean
- Databases: MySQL, Postgres, Mongo DB
- 3rd party services: Firebase, Google APIs etc