

TANVIR AHMED KHAN

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Education

University of Texas at Arlington

Jan 2021 - Present

Ph.D. in Computer Science

CGPA: 3.857

- Focus: Big data, Machine learning, Software Engineering

University of Dhaka

Jan 2013 - Nov 2017

B.Sc. in Electrical and Electronic Engineering

CGPA: 3.10

Research Interests

- **Big Data:** Distributed Computing, Parallel Processing, Data Stream Processing, Query Processing and Optimization, Cloud Computing
- **Machine Learning:** Distributed Machine Learning and Optimization

Publications

- *Scalable Tensors for Big Data Analytics*

L. Fegaras, **T.A. Khan**, M.H. Noor, T. Sultana

IEEE International Conference on Big Data (BigData'22).

- *Translation of Array-based Loop Programs to Optimized SQL-based Distributed Programs*

M.H. Noor, L. Fegaras, **T.A. Khan**, T. Sultana

Open Journal of Big Data (OJBD) 2022.

- *AlloyFL: A Fault Localization Framework for Alloy*

T.A. Khan, A. Sullivan, K. Wang

The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Demonstration Track (FSE Demo) August 2021.

Skills

Languages: C/C++, Python, JavaScript, TypeScript, C#, Java, Scala

Technologies: Apache Spark, Hadoop, TensorFlow, PyTorch, Angular, React, .NET, Tizen, Android, Play, MySQL, MSSQL, Bash, Git

Professional Experience

University of Texas System

Austin, Texas, USA

Software Developer Intern – Texas Medical & Dental Schools Application Services

May 2022 – Aug 2022

- Worked on TMDSAS portal to upgrade it using latest backend and frontend frameworks
- Created a .NET Web API in the backend keeping the existing database and React in the frontend
- Made the API secure using JSON Web Tokens (JWT)
- Using React and Material-UI in frontend, user experience was vastly improved

Samsung R&D Institute Bangladesh

Software Engineer – Moblie Application Group 2

Dhaka, Bangladesh

Nov 2018 – Dec 2020

- Built UI components in Tizen Wearable framework for Samsung Galaxy smart watches
- Maintained and upgraded large code base of Samsung Wearable device apps
- Designed UI scrolling of Weather app to be 30% faster
- Designed and integrated SmartThings app with new API

Software Engineer Intern

Aug 2018 – Nov 2018

Ixora Solution Ltd.

Software Developer

Dhaka, Bangladesh

Mar 2018 – July 2018

- Designed and built a web application for blast (Bangladesh Legal Aid and Services Trust) to be used by people with disabilities to file cases, link: <https://blast-cms.org>
- Implemented a web application for managing product deliveries and logistic operations of courier services

Software Developer Intern

Nov 2017 – Feb 2018

Teaching Experience

Aspire Teaching Fellowship

Jan 2022 – Apr 2022

University of Texas at Arlington and Tarrant Community College

- Observed classroom practices, evidence-based teaching, and learning-through-diversity components at a Community College level
- Practiced setting learning goals for classes, creating assessment
- Taught classes using different teaching practices and student activities

Graduate Teaching Assistant

Jan 2021 – Present

University of Texas at Arlington

- CSE 6331: Cloud Computing
- CSE 5335: Web Data Management
- CSE 2315: Discrete Structures
- CSE 1205/2100: Practical Computer Hardware & Software Systems

Certifications

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- SWC Professional Certificate – Samsung R&D Institute Bangladesh
 - ITEE FE level-2 – IPA: Information-technology Promotion Agency, Japan

Interests

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- Chess, Soccer, Travelling, Photography, Food