Md Bulbul **Sharif**

CONTACTS

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SKILLS

- Java
- C, C++, C#
- Python, R
- OpenMP, MPI
- CUDA (GPU)
- Android Application
- Parallel Programming
- High Performance Computing
- Machine Learning
- Data Mining
- Game Development
- Unity3d
- SQL, Html, Php, JS

- Problem Solving
- Application Testing
- Bug Resolution
- Application Design
- Product Release
- Work Under Pressure
- Decision Making
- Time Management
- Continuous Learning
- Adaptability
- Self-motivation
- Teamwork

OBJECTIVES

Skilled developer and researcher enthusiastic about supporting advancements in application development. Looking for opportunities to develop skills, gain exposure to real-world experience, and explore career paths to software development.

EDUCATION

- Graduate Studies (**PhD**) in Computer Science, 2017 – 2022 (Expected), GPA – **4.0**
  Tennessee Tech University, Cookeville, TN, United States
- **BSc** in Computer Science & Engineering, 2011 – 2016, GPA – **3.4**
  Bangladesh University of Engineering & Technology, Dhaka, Bangladesh

WORK EXPERIENCES

- **Research Intern**, Oak Ridge National Laboratory, Oak Ridge, TN, United States, 2019
  The internship was devoted to study and develop a large-scale, high-resolution flood simulation model (TRITON) using CUDA, OpenMP, and MPI. This research contributed to the multi-year research collaboration between ORNL and the Air Force for predictive hydrologic and flood modeling capabilities to support the long-term Air Force mission. During the appointment, I accessed and gained experience from high-performance computing using the state-of-the-art DOE Leadership Computing Platform.
- **Android Developer**, Reve System Ltd, Dhaka, Bangladesh, 2016 – 2017
  Designed and built advanced VOIP applications for the Android platform and collaborated with cross-functional teams to define, design, and launch new features. Tested code for robustness; executed edge case, usability, and general reliability analysis. Fixed bugs and improved application performance. I have partnered with artists, QA, and backend developers to maintain best practices.
- **Student Volunteer**, SC18 & SC20 Conference, Dallas & Atlanta, United States, 2018 & 2020

ACCOMPLISHMENTS

- Best paper award of PASC 2020 conference, Switzerland.
- Best paper and Best presenter award of ICCIT 2018 conference, Dhaka.
- Eminence Awards 2019 & 2021 from Tennessee Tech University for The Doctor of Philosophy Best Paper of Computer Science Department.
- Lead developer of TRITON (https://triton.ornl.gov/)
- Developed and published six games on Google play store and one game in Microsoft store. https://play.google.com/store/apps/developer?id=Knight%27s+Cave (8 million downloads)

https://www.microsoft.com/en-us/p/29-card-game/9nblggh2wdtn?activetab=pivot:overviewtab

RESEARCH

- **An Advanced Parallel Programming Framework for Iterative Stencil Loops Application Computation in Heterogeneous High-Performance Computing Environments:** Uniform application programming interface for heterogeneous systems, simplifying programming, portability, performance portability, performance prediction, productivity, resource utilization and optimization, specialized to simulation of Stencil computation with structured grid.
- **Multimodal Machine Learning for Malware Detection:** Combination of static and dynamic malware detection using deep learning and classical machine learning algorithms.
- **TRITON:** Multi GPU flood simulation model. Scales up to 768 Nvidia Tesla V100 GPUs. A flood event of 272 million cells and 10 days simulation take only 1 hour to finish.

Complete Publication List: https://scholar.google.com/citations?user=xe2LRGsAAAAJ&hl=en