Md Bulbul **Sharif**

CONTACTS

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SKILLS

LANGUAGES

- JAVA
- C, C++, C#
- Python, R
- SQL
- HTML, PHP
- Assembly

TOOLS

- OpenMP
- MPI
- CUDA
- Unity3D
- Keras
- Tensorflow
- Git
- Android Studio

EXPERTISE

- Android Application
- Parallel Programming
- High Performance Computing
- Machine Learning
- Game Development

1. 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.

2. EDUCATIONS

- **PhD** in Computer Science, 2017 – 2022 (Expected in April), 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

3. 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. The developed tool is a computationally efficient, physics-based hydraulic model that operates on a regular/structured grid and solves the full 2D shallow water equations. We have found real-life simulation 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. TRITON is open-source and available at https://code.ornl.gov/hydro/triton (Official Website: https://triton.ornl.gov/).
- **Android Developer**, Reve System Ltd, Dhaka, Bangladesh, May, 2016 – June, 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.

4. 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.

5. PERSONAL PROJECTS

- 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
  https://www.microsoft.com/en-us/p/29-card-game/9nblggh2wdtn
- Project Website: https://www.knightscave.com/

6. RESEARCHES

- High Performance Computing, Performance Portability, Productivity, Advance Parallel Programming Framework, Parallel Application, GPGPU
- Performance Evaluation of a Two-Dimensional Flood Model on Heterogeneous High-Performance Computing Architectures. [Conference - Pdf]
- TRITON: A Multi-GPU Open Source 2D Hydrodynamic Flood Model. [Journal - Pdf]
- Assessing Modality Selection Heuristics to Improve Multimodal Deep Learning for Malware Detection. [Conference - Pdf]

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