Fahim Tahmid Chowdhury

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OBJECTIVE

To satisfy my thirst for innovation and add values to the society while building up my career in research assisted by my engineering acumen

CURRENT EMPLOYER Department of Computer Science, Florida State University, Tallahassee, Florida

Graduate Research Assistant

August, 2017 - Till Date

Working in Computer Architecture and SysTems Research Lab (CASTL) under the supervision of Professor Dr. Weikuan Yu

RESEARCH INTERESTS

- Computer Architecture: File Systems and Storage, I/O Acceleration, Operating Systems
- Artificial Intelligence: Machine Learning, Convolutional Neural Networks and Deep Learning
- Theoretical Computer Science: Graph Theory, Drawing and Visualization

EDUCATION

Florida State University, Tallahassee, Florida

PhD, Computer Science, Currently studying, CGPA 4.00/4.00

Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

Bachelor of Science, Computer Science and Engineering, February 2013, CGPA 3.54/4.00

Notre Dame College, Dhaka, Bangladesh

Higher Secondary Certificate(HSC), Science, 2007, GPA 5.00/5.00

Ispahani Public School and College, Chittagong, Bangladesh

Secondary School Certificate(SSC), Science, 2005, GPA 5.00/5.00

RESEARCH EXPERIENCE National Energy Research Scientific Computing Center (NERSC), Lawrence Berkeley National Laboratory (LBNL), Berkeley, California

Student Assistant

May, 2018 - August, 2018

Worked as a summer intern in the Data Analytics and Services group at NERSC on a project for analyzing scalable data pipeline for distributed deep learning

NERSC, LBNL, Berkeley, California

LBNL Affiliate

August, 2018 - Till Date

Continuing the summer internship project on distributed deep learning applications' data pipeline

RESEARCH PROJECTS

- Scalable Data Pipeline for Distributed Deep Learning: Working on a project with NERSC for profiling I/O in the distributed deep learning applications to explore the I/O bottlenecks, and design and implement an optimization strategy to overcome the possible bottlenecks
- BeeGFS Performance Evaluation: Serving a collaboration project with LLNL for evaluating the performance of BeeGFS parallel cluster file system using different benchmark tools (e.g. DD, IOZone and IOR)
- Burst Buffer File System: Working on a collaboration project with Lawrence Livermore National Laboratory (LLNL) for improving the performance of a burst-buffer file system (i.e. UnifyCR) by enhancing the garbage collection process
- Study on LBANN: Studying on Livermore Big Artificial Neural Network (LBANN)
- Specialized File System for Large Datasets of Deep Neural Network: Assisting a collaboration project with LLNL for designing a file system for large datasets of Deep Neural Network by studying the data shuffling mechanism in TensorFlow and Caffe

ACADEMIC PROJECTS

- CSE Office Management: An integrated system for automating all the official tasks (i.e. Inventory management, Notice board, Teachers' profile, Peer-to-peer communication etc.) of BUET CSE
- Network Text Editor: A C++ application to facilitating collaborative editing in a LAN

- Automated Water Faucet: A portable hardware device that can be put on any water tape to control the flow of water automatically by detecting human presence using PIR sensor for avoiding wastage
- Digital Watch with Timer: A digital watch with timer developed using ATMEGA 8 Microcontroller
- LAN Messenger: A software developed in Java for chatting with the contacts that are in a LAN
- NACHOS: Not Another Completely Heuristic Operating System implementation developed in C++
- Snooker Game: A two player Snooker game developed in C++
- Screensaver: A simple screensaver developed in Assembly Language

Undergraduate Thesis

Design of a Surveillance System for Dhaka City, Graph Drawing and Information Visualization Lab, CSE, BUET under the supervision of Dr. Md. Saidur Rahman

ACADEMIC ACHIEVEMENTS

- Champion in the Intra-Department Project Competition for the project CSE Office Management
- Board Merit Scholarship, HSC Examination
- Board Merit Scholarship, SSC Examination

Industry Experience

IPvision Canada Inc, Dhaka, Bangladesh

Software Analyst

October, 2016 - July, 2017

Worked as a member of the development team for developing the SDK of the social networking platform named ringID

Vizrt, Dhaka, Bangladesh

Software Engineer

July, 2014 - September, 2016

Served as a member of the *Sports Solutions* R&D team in Dhaka, mostly worked on *Viz Libero* software

Enosis Solutions, Dhaka, Bangladesh

Software Engineer

February, 2013 - June, 2014

Worked as a member of the development team for Visual-Host which is an offshore SDK framework of a Computer Aided Engineering(CAE) software Visual-Environment

TECHNICAL SKILLS

- Programming Languages: C/C++, Python, C#, Matlab, Java, Javascript, Prolog
- API LIbraries: HDF5, BSD sockets, WinSock, Opengl, Boost, Windows API
- Frameworks: TensorFlow, Caffe, Horovod, Qt Framework, MFC, .NET Framework, Google Test
- Distributed File Systems: BurstFS, UnifyCR, BeeGFS, Lustre, Octopus
- I/O Benchmark Tools: IOR, DD, IOZone, Bonnie++
- Profiling Tools: Darshan, TensorFlow Timeline
- Database Management Systems: MySQL, Oracle, Web SQL, SQL Server
- Design Tools: EDraw, GraphViz, Rational Rose
- Documentation Tools: LATEX, Doxygen
- Project Management Applications: Jira, Redmine, Mantis, Microsoft Project
- Version Control Systems: Git, Mercurial, SVN
- Operating Systems: Unix/Linux, Windows

Community Work

Engineering Students' Association of Bangladesh

A common platform for all the engineering students of Bangladesh

President

October, 2011 - November, 2013

Pioneered the voluntary association along with a bunch of energetic people and served as the organizational head

Voluntary Projects

- Gaming Application for Differently Abled Children: A car racing game interfaced with cycling machine for encouraging the Active Range Of Motion Exercise (AROME) for the children having weakness in Quadriceps femoris muscle being conducted in Feroza Bari Disabled Children Hospital
- Software for ReCAP: A software for prioritizing the roads and highways by simulating an algorithm that is developed by Department of Urban and Regional Planning, BUET