Subhadeep Bhattacharya

Contact Information

1405 Raa Avenue
Tallahassee
FL 32303

Cell: (+1) 850-405-8352 *Skype:* subhadeepit94_1
E-mail: sb17v@my.fsu.edu
LinkedIn: www.linkedin.com/in/subhadeep-bhattacharya-fsu
Github: https://github.com/sb17v
Website: https://sb17v.github.io

Research Interests

- **High Performance Computing:** Parallel Programming Models, Communication Conduits for High Performance Interconnects
- **Deep Learning:** Distributed Deep Learning Frameworks
- **Bioinformatics:** Microarray Data Analysis

Education

Florida State University, Tallahassee, Florida
PhD, Computer Science, *CGPA* **4.00**/4.00 **August, 2017 - Till Date**

St. Thomas' College of Engineering and Technology, Kolkata, India
B.Tech., Information Technology, *DGPA* **8.54**/10.00 **August, 2011 - August, 2015**

Experiance

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*
- ***Graduate Teaching Assistant*** **August, 2017 - December 2017**
  Worked as a Teaching Assistant for Introduction to Operating Systems (COP 4610)

Infosys, Bengaluru, India

- ***Systems Engineer*** **Sept, 2015 - August, 2017**
  Worked as a **Java and NodeJS** application developer for developing Application and Microservices layer for different web applications specifically MyAccount and NBN+ for the Australian telecommunications company ***Telstra***

Research Projects

- **Optimization Techniques for Distributed Deep Learning Framework:** Currently working on optimizing the communication bottleneck for distributed Deep-Learning framework.
- **OpenSHMEM-X Libfabric Conduit Implementation:** Worked on a project with Oak Ridge National Laboratory for implementing a communication conduit for OpenSHMEM-X using OFI Libfabric and also tried to improve its portability and performance.
- **SHMEMCache on Hybrid Memory Architecture:** Worked on a project with Oak Ridge National Laboratory to enable Hybrid Memory Scheme for SHMEMCache.
- **Spark:** Study of different shuffling mechanisms present in Spark and implemention of a custom logger for collecting different parameters related to shuffling phase to understand their characteristics.

Selected Publication

Subhadeep Bhattacharya, Shaeke Salman, Manjunath Gorentla Venkata, Harsh Kundnani, Neena Imam, Weikuan Yu. *An Initial Implementation of Libfabric Conduit for OpenSHMEM-X.* OpenSHMEM 2018: Fifth Workshop on OpenSHMEM and Related Technologies (Baltimore, Maryland). August 2018.

Technical Skills

- Programming Languages: C/C++, Python, Java, Matlab, Javascript, Jquery, NodeJS, TypeScript
- Database Management Systems: MySQL, Oracle, SQL Server
- Frameworks: Sandia OpenSHMEM, ORNL OpenSHMEM-X, UCX, OFI Libfabric, Horovod, Spring Boot, Spring MVC, JSF, Hibernate, Mockito, Rabbit MQ, APIGEE, Camunda, Qt Framework
- Operating Systems: Unix/Linux, Windows
- Others: LaTeX, Doxygen, Git, SVN, Jira, Confluence, Stash, Bamboo

Academic Projects

- **Simple shell:** An simplified Unix shell implemented using C++
- **Compiler for MicroC:** Compiler for a simple C-inspired programming language using C, Flex and Yacc
- **Pretty printer:** A simple pretty printer that takes any C code and produce a reformatted HTML
- **Analysis of Microarray data to find out Important and Informative Genes:** A system implemented using Matlab to study the gene expression from Microarray data set, estimate the missing gene expressions and determine an ensemble of classifiers to correctly identify the diseased samples from the non-diseased one