Sourav Chakraborty

Austin, TX, USA
+1 (614) 500-3409
sourav@maxhpc.com
https://www.maxhpc.com/

EXPERIENCE

Advanced Micro Devices (AMD), Sr. Software Developer

2019 - PRESENT

Led UCX and MPI development efforts for AMD GPUs

Design features for improving performance of traditional HPC applications and AI frameworks

Identify and contribute support for AMD GPUs to relevant open source software ecosystems (RDMA, MPI Benchmarks, etc.)

Helped secure $1M+ deal by analyzing and solving customer need

The Ohio State University, Research Assistant

2013-2019

Develop scalable and adaptive communication runtimes for large scale HPC systems

Design intra-node and inter-node communication protocols and collective algorithms for MPI and OpenSHMEM

Optimize MPI library for cloud environments (AWS and Azure)

Expertise in working with large HPC clusters with thousands of nodes

Lawrence Livermore National Lab, Research Intern

2015

Develop fault-tolerant MPI libraries with SLURM

Yahoo! Inc, Software Development Engineer II

2011-2013

Develop web-service APIs for serving ~1Billion user profiles to high-traffic pages

Led migration of 500M FB profiles to Yahoo! NoSQL database

EDUCATION

The Ohio State University, M.S., Ph.D. (CS)

2013-2019

Jadavpur University, B.E. (IT)

2007-2011

TECHNOLOGIES

UCX, GPUDirect RDMA, InfiniBand, Omni-Path, MPI, SHMEM, XPMEM, SHARP, RCCL/NCCL, SLURM

PUBLICATIONS

Co-authored more than 20 peer-reviewed papers in journals and conferences

Patent: Peer-to-peer architecture for web traffic management (US20140012906A1)

AWARDS

Best Graduate Student Research Award, OSU-CSE 2018

ACM Student Research Award at SuperComputing 2016

Several best paper/poster awards and nominations at SC, IPDPS, ISC, and Cluster

COMMUNITY

Represented OSU in MPI Forum standardization effort