TEJESWINI SUNDARAM

HPC Laboratory, Supercomputing Education and Research Centre, Indian Institute of Science, Bangalore, India.
+91 95-38-815110 | tejeswini@hpc.serc.iisc.ernet.in/ tejeswinisundaram@gmail.com

Education

Manipal University, India

B.Tech Computer Science and Engineering| CGPA 9.43/10 **(Aug 2011- July 2015)**

- Related coursework: Heterogeneous Computing, Parallel Computing, Computer Architecture, Operating Systems, Distributed Systems, Data Mining, Machine Learning, Artificial Neural Networks (ANN), Networking, Data Structures and Algorithms.

Areas of Interest

- High Performance Computing, Parallel Computer Vision, Parallel Computing, Computer Architecture and Machine Learning.

Skills & Abilities

- Languages known: C, C++, C#, Java, Python, OpenCL, OpenMP, OpenCV, ASP.NET, PHP.
- Tools: git, vtune amplifier, gdb, visual studio, weka, caffé.
- Operating Systems: Windows, OpenSUSE, Ubuntu, Debian Wheezy.

Work Experience

Research Project Assistant | HPC Lab, SERC Dept., IISc, Bangalore. **(Aug 2015 -Present)**

Research Project assistantship in the high performance computing laboratory, working in areas of computer architecture, multicore architecture, GPGPUs and parallel computing, under the guidance of Prof. R Govindarajan, Chairman of SERC Dept. of Indian Institute of Science (IISc) Bangalore.

Internship and Project Experiences

Research Intern | HPC Lab, SERC Dept., Indian Institute of Science, Bangalore. **(Jan–July 2015)**

AlCoViC: Accelerated Computer Vision on Heterogeneous Coprocessors such as Intel MIC and Nvidia GPGPUs.

Analyzing the performance and bottlenecks involved in accelerated computer vision problems on heterogeneous coprocessors and GPGPUs such as Intel Xeon Phi and Nvidia Tesla, in the high performance computing laboratory under the guidance of Prof. R Govindarajan, Chairman of SERC Dept. of Indian Institute of Science (IISc) Bangalore.

Winter Research Student | IPTSE Winter School, Carnegie Mellon University. **(Dec, 2014)**

Voice Forensics

A system that would identify bodily features such as height, weight, age, sex, region of origin and various other demographic information about a miscreant from the voice evidence collected. The end objective was to build an extensive, if not comprehensive, one-of-a-kind voiceprint database to enable authorities to track criminals. The project was done under the guidance of Prof. Bhiksha Raj and Prof. Rita Singh, School of Computer Science, Carnegie Mellon University.

Research Student | IBM India Research Laboratory (IRL) I-CARE Winter School. **(Oct, 2014)**

Participated as an undergraduate research student, in the IBM India University Relations, 6th IBM Collaborative Academic Research Exchange (I-CARE) conference and winter school held at Bangalore. The conference and winter school focused on the current trends in areas of Deep Learning, Machine Learning and Big Data Analytics.

Research Student | Manipal University Innovation Centre **(Aug-Dec, 2014)**

Static and Dynamic Video Summarization Technique

An improvised static and dynamic video summarization technique, was implemented under the guidance of Dr. Manohara Pai. M. M, Associate Director, Manipal Institute of Technology. In this project, we made use of various data mining techniques such as k-means and k-nn algorithm, along with acceleration using Nvidia GPGPUs for better performance of the video summarization.

Summer Intern | Microsoft India Corporation Pvt. Ltd, Bangalore **(Jun - July, 2014)**

Microsoft Consulting Services India Delivery Dashboard

This was a summer project on the design and implementation of the MCS India Delivery Dashboard for customer centric delivery tracking and management under the guidance of Microsoft Consulting Services India Lead, Ms. Divya Sampath. My role in this project was to analyze the Key Performance Indicators and metrics from multiple data sources and implement the web-enable dashboard for information management and actionable decision making.

Summer Intern | Tata Consultancy Services Pvt. Ltd, Chennai **(July, 2013)**

During this internship I was involved in the development of an internal communication medium for Tata Consultancy Services under the guidance of Mr. Loganathan, Manager at Tata Consultancy Services Pvt.Ltd. My role in this project was to build the front end and link the database to the backend of the system.

GE Foundation Scholar | GE JFWTC Centre, Bangalore **(June, 2013)**

Scavenger – A smart waste management system.

Scavenger was a product of the Team Internet during the GE Foundation Scholar Meet at John F Welch Technology Centre, Bangalore during 2013. It included an Advanced Dustbin Design, Innovative Incinerator and Wireless Central Monitoring System for efficient disposal and management of waste in India buildings. My role in this project was to design a frugal method to build a smart waste management system and design the backend required for it.

Publications

- *Word Existence Algorithm,* Tejeswini Sundaram, Vyom Chabbra, International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH), 2014.
- *Binary Encryption using Based on a Rubik's Cube,* Tejeswini Sundaram, Vyom Chabbra, International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH), 2014.

Poster Presentation

- *Voice Forensics,* Tejeswini Sundaram, Priya Soundarajan, Sakthivel.S, and Utkarsh Pathange at CMU Internship Program in Technology Supported Education (IPTSE) Winter School, jointly held at National Institute of Technology Karnataka India, December 2014.

Awards

- **Best Project Award** at the Internship Program in Technology Support Education (IPTSE), Winter School-2014 held by Carnegie Mellon University.
- **GE Foundation Scholar- Leader Award** 2013 -15, in recognition of excellent academic achievement and future potential.
- **AICTE Scholarship Award** for performance in the engineering entrance examination.
- Awarded the "**Victor Ludorum Trophy**" and "**Best Athlete Trophy**" for depicting all-rounder excellence by St Francis Xavier Girls High School, Bangalore, 2009.
- **Rotary Youth Leadership Awards (RYLA),** Rotary International (RI) District 3160, December 2012.
- **Perfect Score** of 10.0/10.0 in third semester of the Bachelor in Technology degree course.

Leadership Positions

- **Program Committee member** of Systems Track at the GHCI Conference-2015 by Anita Borg Institute.
- **Chairperson** of IEEE Student Branch Manipal, 2014.
- **Project Coordinator** at Volunteer Services Organization (VSO) Manipal, 2013-14.
- **Team Manager** of Team Internet at the GE Foundation Scholar Leader Program, 2013.
- **Judges and Reception Head** at Tesseract, IEEE SBM's annual technical festival, 2014.
- **Committee Member** of IEEE Student Branch Computing Team, 2012-13.
- **Sports Captain** of St Francis Xavier Girls High School, 2008-09.
- **Basket Ball, Hockey and Athletic Team Captain** as a part of my school days. Participated in regional and state level competitions.
- **Hostel Representative** of St Francis Xavier Girls High School Hostels, 2008-09.
- **Teresa's House Prefect** of St Francis Xavier Girls High School, 2007-2008.

References

Will be provided on request.