Tejeswini Sundaram

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Education

B.Tech. in Computer Science, May 2015
Manipal Institute of Technology, Manipal University, India.
CGPA: **9.41 / 10.00**

Area of Interest

Computer Architecture, High Performance Computing, Programming Languages, Machine Learning.

Experience

Project Assistant, HPC Lab, Indian Institute of Science, B'lore. Aug 15 - Present.

- Automatic Task Partioning of OpenCL kernels using Machine Learning Techniques in Heterogeneous Systems.

Research Intern, HPC Lab, Indian Institute of Science, B'lore. Jan - Aug 15.

- Formulated bachelor thesis project titled, ***"AlCoViC : Accelerated Computer Vision using Heterogenous Coprocessors."*** Analyzed performance, execution time, core utilization, and overheads in the chosen OpenCL accelerated vision algorithms and applications in heterogeneous systems.

Project Student, Innovation Centre, Manipal University, Manipal. Aug - Nov 14.

- Developed a static and dynamic video summarization model, which was accelerated using GPGPUs. Worked on vision algorithms, parallel architectures, CUDA and OpenCL programming.

Summer Intern, Microsoft, Bangalore. Jun - July 14.

- Designed and developed the MCS India Delivery Dashboard for customer centric delivery tracking. Implemented the web-enable dashboard for information management and actionable decision making using C#, visual studio and metro apps design.

Summer Intern, Tata Consultancy Services, Chennai. Jun - Jul 13.

- Worked on an internal communication software, using Java Language. Built the front end and linked the database to the backend of the system.

GE Foundation Scholar, GE JFWTC Centre, Bangalore. May - Jun 13.

- Designed ***"Scavenger"***, a frugal smart waste management system with an innovative sanitary napkin incinerator and wireless central monitoring system for Indian buildings.

Winter Schools

IPTSE Winter School, Carnegie Mellon University. Dec 2014.

- Research on ***"Voice Forensics"*,** a system to identify bodily features and demographic information about a miscreant from the voice evidence collected.
- Analyzed audio features such as signal energy, loudness, pitch, MFCC, PLP-CC, voice quality, and formants.
- The Framework developed, using neural networks, consisted of audio feature extraction, machine learning tools, classification and regression algorithms.

I-CARE Winter School, IBM India Research Labs. Oct 14.

- Studied about the current trends in areas of Deep Learning, Machine Learning and Big Data Analytics.

Thesis Presentation

- ***"AlCoViC : Accelerated Computer Vision using Heterogenous Coprocessors."***, Tejeswini Sundaram, under the guidance of Prof. R Govindarajan, Indian Institute of Science and Prof. Prema K.V, Manipal Institute of Technology, in June 2015.

Poster Presentation

- ***"Voice Forensics"***, Tejeswini Sundaram, Priya Soundarajan, Sakthivel.S, and Utkarsh Pathange at CMU Internship Program in Technology Supported Education (IPTSE) Winter School, held by CMU and NITK Surathkal, December 2014.

Publications

- ***"Binary Encryption based on a Rubiks Cube"***, Tejeswini Sundaram, Vyom Chabbra, International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH), 2014.
- ***"Word Existence Algorithm"***, Tejeswini Sundaram, Vyom Chabbra, International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH), 2014.

Leadership Activities

Program Committee Member, Systems Track, GHCI-2015.	2015
Chairperson, IEEE Student Branch Manipal.	2014
Judges and Reception Head, Tesseract, IEEE SBM tech-fest.	2014
Team Manager, Team Internet, GE Foundation Scholar Leader Program.	2013
Technical Committee Member, IEEE SBM.	2012
Sports Captain, St Francis Xavier Girls High School.	2009
Hostel Representative, SFX Hostels.	2009
House Prefect, St Francis Xavier Girls High School.	2008

Honors & Awards

GE Foundation Scholar- Leader Scholarship (GEFSLP) Award 2013-15.
AICTE Scholarship, Government of India, 2011-15.
GHCI Student Scholarship, Grace Hopper Celebration India (GHCI), 2015.
Best Project Award, CMU IPTSE Winter School, 2014.
Best App Award, Microsoft App Fest, 2014.
Rotary Youth Leadership Awards (RYLA), RI District 3160, 2012.
Sri Bhagwan Mahaveer Jain Scholarship for pre-university study, 2009 -11.

Computer Skills

Languages:	C, C++, C#, Java, Python, OpenCL, OpenMP, MPI, OpenCV.
Software:	Git, Vtune Amplifier, Gdb, Visual Studio, Weka, Caffe.
Operating Systems:	Microsoft Windows, OpenSUSE, Ubuntu, Debian Wheezy.

References

Will be provided on request.