Sreeharsha Udayashankar

Graduate Research Assistant

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Education

MMath (Thesis) - Computer Science

University of Waterloo

2019 - Present

GPA: 92%

Bachelor of Engineering - Computer

Science

PES University, Bangalore, India

2013 - 2017

GPA: 9.12 / 10

Publications and Awards

- Gaming Modeling and Projections The Impact of CPU Performance
 Sreeharsha Udayashankar, Saumya
 Chandra and Don Cherepacha - AMD Asia
 Tech Conference 2019
- > Spotlight Award AMD. 2017
- Distinguished Performance Award Philips, 2015

Skills

- > Programming: Python, C, C++ and Java
- Parallel Programming: PThreads and OpenMP
- Performance Analysis: Xperf, GPUView and AMD CodeXL / GPUPerf
- Data Analysis: Numpy, Pandas and scikitlearn
- > Web Design: Bootstrap, D3 and JS

Volunteer Experience

Regional Head

Igniting Young Minds (NGO), 2014 - 2017

Igniting Young Minds is an initiative to help underprivileged children by imparting soft-skill training and raising their awareness about the opportunities available to them.

About Me

I am a graduate student researcher at the Waterloo Advanced Systems Laboratory working under the supervision of Prof. Samer Al-Kiswany. My primary research interests lie in Distributed Systems, Cloud Computing and Operating Systems.

In the past couple of years prior to enrolling in this program, I was a member of the CPU Performance and Workloads team at Advanced Micro Devices (AMD). I have also worked as a student researcher on various projects during my undergraduate studies.

Professional Experience

Design Engineer II

Advanced Micro Devices (AMD), January 2017 – July 2019

I held various positions at AMD ranging from Co-op Engineer up to Design Engineer II. I was a part of the CPU Performance and Workloads team and engaged in driving CPU architectural design using workload performance as an indicator.

- Performance Profiling and Workload Analysis / Characterization
- Performance Modeling **Published** at the AMD Asia Tech Conference 2019
- CPU Performance Simulations and Instruction Tracing

Summer Intern

Philips, June 2016 – July 2016

I worked on projects involving Machine Learning as well as designed a KPI Dashboard for Engineering Team Performance using WCF Services.

> Awarded for exemplary performance

Research Experience

Graduate Research Assistant

University of Waterloo, September 2019 – Present

I am working under the supervision of Prof. Samer Al-Kiswany in the area of distributed systems and networking.

Accelerating large scale data systems' performance using in-network processing

Undergraduate Research Assistant

PES University, August 2015 - December 2016

I was a part of the Cloud Computing and Big Data (CCBD) Lab working under the supervision of Dr K.V. Subramaniam.

- OpenSim An open source simulator for OpenStack
- Video Indexing of Football matches and sentiment analysis of football commentary
- Classification of objects in surveillance footage using OpenCV and Python