Sreeharsha Udayashankar

Graduate Research Assistant

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Education

MMath (Thesis) - Computer Science
University of Waterloo
2019 – Present
GPA: 93%

Bachelor of Engineering - Computer Science
PES University, Bangalore, India
2013 – 2017
GPA: 9.12 / 10

Publications and Awards

- **Falcon - Low Latency Network Accelerated Scheduling**
  I. Kettaneh, *S. Udayashankar* ,*A. Abdel-Hadi and S. Al-Kiswany – Accepted at ACM EuroP4, 2020*
- **Gaming Modeling and Projections – The Impact of CPU Performance**
  S. Udayashankar, *S. Chandra and D. Cherepacha - AMD Asia Tech Conf, 2019*
- **International Master's Award of Excellence:** *University of Waterloo, 2019*
- **Spotlight Award:** *AMD, 2017*

Skills

- **Programming:** Python, C, C++ and Java
- **Parallel Programming:** PThreads and OpenMP
- **Data Analysis:** Numpy, Pandas and scikit-learn
- **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