Jashwant Raj Gunasekaran

445 Waupelani Dr, Apt G11, State College, PA 16801
Ph: (814) 777-5967 Email: jashwant.raj92@gmail.com

EDUCATION

PhD Student in Computer Science and Engineering **Aug '14 - Present**
Advisor: Dr Mahmut Kandemir
CGPA 3.52/4, Pennsylvania State University, University Park,
Concentration in Computer Architecture & Systems

Bachelor of Engineering in Computer Science and Engineering **Aug '09 - May '13**
CGPA 8.24/10, Anna University, Chennai, India

RELEVANT COURSE WORK

Operating Systems Design, Public Cloud Computing, Parallel Computer Architecture, Data Structures and Algorithms, Object Oriented Programming using Java and C, Multiprocessor Architecture, Computer Networks, Statistical Analysis and Data Mining

EXPERIENCE

Intern- Qualcomm Inc, San Jose CA **Jun '16 - Aug '16**

- Part of wifi firmware team. Worked on adding a new software power management feature into existing MAC firmware module.

Intern- Qualcomm Innovation Centre, San Diego CA **Jun '15 - Aug '15**

- Part of the Android power optimization, I worked on the tools front to enable log collection using Python and process the logs to obtain critical power utilization measures.
- Exposed to android power design and how use-cases map to specific power requirements.

Software Engineer- Qualcomm Inc, Chennai India **Jun '13 - Jul '14**

- Developed coded tests to validate the various Qualcomm proprietary features and also automated several wifi functionality tests. Technologies Used: SWAT automation, Networking protocols, Perl.
- Proposed a patent application named Processor Capacity Sharing which deals with sharing mobile processors in a home environment.

RELEVANT PROJECTS

Constraint aware scheduling for Cloud Systems: Developed a trace driven scheduler for constraint aware scheduling in heterogeneous cloud architectures (Accepted at ICDCS 2017).

Intel End-to-End Project : As part of Master thesis working on project with Intel to study workload characteristics of image/vision search applications on a distributed environment with Xeon Phi co-processor.

Parallel file system: Developed a parallel distributed file system (like NFS) which handles all file handling and multiple user file access.

Multilevel thread scheduler: Designed a multilevel thread FCFS, SJB and MLFQ scheduler for realtime Operating System.

Enhancing hi-CUDA: Under Grad thesis work includes design of algorithmic skeleton for DIVIDE and CONQUER technique on the multi-core architectures CUDA.

Random4 : Published IEEE paper on Randomized encryption algorithm to prevent SQL injection

TECHNICAL SKILLS

Programming : C, C++, Java, Python, Bash Shell, OpenMP ***Distributed frameworks:*** Spark, Hadoop, Caffe ***DataBase Technologies :*** MYSQL,Oracle ***Web Technologies:*** HTML, CSS, JavaScript, XML

INTERESTED DOMAINS

Operating System: ,Linux Kernel Development, Device Drivers and Firmware ***Distributed systems:*** Tools/Infrastructure and test automation, Scheduler Optimizations ***HPC:*** Workload characterization, HPC benchmarks, Server performance, Internet of Things(IOT).