Kapil Agarwal

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OBJECTIVE

Seeking summer internship in Software Engineering for the period of May-Aug 2015.

EDUCATION

Georgia Institute of Technology, Atlanta, GA Aug 2014 to May 2016
Master of Science in Computer Science Specialization: Systems
Courses: Advanced Operating Systems, HPPC Tools & Applications, Computer Networks

Indian Institute of Technology, Roorkee, India May 2014
Bachelor of Technology in Computer Science & Engineering CGPA: 8.872 on a scale of 10
Courses: Advanced Computer Architecture, Network Programming in Unix, Data Mining & Warehousing

TECHNICAL STRENGTHS

Programming Languages: C, C++, Java, PHP, Python, HTML, Javascript
Databases: MySQL, PostgreSQL
Tools: Git, Vim, Visual Studio, Eclipse

EXPERIENCE

SDE Intern, Amazon India Development Centre, Hyderabad, India May 2013-July 2013

- Added selective audit feature to the Event Bus service, based on Publisher-Subscriber model, whereby events are stored in AWS S3 and Cloud Search is used for searching those events. Also used AWS SNS and SQS for sending and receiving the events.
- Developed and deployed a Self-service tool to manage subscriptions and a user interface for searching and republishing the events. The service is developed using Java and JSP was used for the backend.

Intern, Centre for Development of Advanced Computing, Pune, India May 2012-July 2012

- Worked with the High Performance Computing group to develop low level benchmarks for health monitoring of GPU devices on a message passing GPU cluster with NVIDIA GPUs and AMD APUs.
- Developed suites of Device Query, Bandwidth measurement, Matrix computation performance analysis programs using MPI and CUDA/OpenCL programming.

PROJECTS

Thread Scheduling with GTThreads Course Project

- Implemented a credit-based scheduler in the given GTThreads library.

Prediction and Analysis of Complex Data Using Data Mining Techniques Undergraduate Thesis

- Designed a technique to give product recommendations to a new user based on relationship between products' user ratings and user characteristics. Used unsupervised learning methods for clustering similar users.

Anomaly Detection and Similarity Search in Time Series Data Research Project

- Developed a technique to detect anomalous time series among multiple time series based on the idea that similar time series would have similar variation in their slopes in corresponding time intervals.

Lectures & Tutorials Web Development

- A web application for faculty to upload lectures, tutorials, exam papers and its solutions for students to access over the intranet. Developed using PHP and MySQL. One of the most used apps in IIT Roorkee.

Kriti Web Development

- A web application developed using Python and PostgreSQL, for students to upload art, poetry, videos and e-magazines to showcase their creativity and get feedback from their peers at IIT Roorkee.

RESEARCH PUBLICATION

Agarwal, Kapil, et al. "**Anomaly Detection and Similarity Search in Neutron Monitor Data for Predictive Maintenance of Nuclear Power Plants.**" Advanced Computing, Networking and Security (ADCONS), 2013 2nd International Conference on. IEEE, 2013.