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AKASH PANDEY

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EDUCATION

Raleigh, NC	North Carolina State University	Fall 2015 – Dec 2016

- Master of Computer Science, started in Fall, 2015. Current CGPA 4.0 out of 4.0.
- Coursework till now: Data Intensive Computing, Computer Networks, Operating systems, Parallel Systems Machine Learning, IOT Analytics, Compiler Construction, Computer and Network Security

Lucknow, India	Uttar Pradesh Technical University	Aug 2008 – June 2012

- Bachelor of Technology in Computer Science with 71% aggregate marks.
- Important coursework: Algorithms, Comp. Networks, OS, Compiler, Artificial Intelligence, Automata

EXPERIENCE

Mountain View, CA	Nuage Networks from Nokia	June – August 2016

- Worked as *Technical Marketing Expert Intern*.
- Full stack development of a web portal to serve files, using server-less architecture and AWS Lambda.
- Built a generic notification delivery service, to send email, SMS, Slack and AMQP notification messages.

Bengaluru, India	Mavenir Systems (now Mitel Networks)	Sep 2012 – Aug 2015

- Worked as *Sr. Software Engineer, Research and Development*.
- **Cassandra driver:** Designed and implemented a driver for Cassandra database in C++ that acts as a reliable communication layer between applications and Cassandra server nodes across data centers.
- **Message store:** Implemented a REST service that stores and forwards SMS, MMS and Voicemails in a mobile phone network using Cassandra and Openstack Swift as backend storage.
- **C++ Thread pool:** Developed a general purpose thread pool in C++ using pthread library that provides lightweight threads to perform blocking I/O.
- **Store and forward in distributed database**: Conceptualized and implemented a distributed and scalable message store and forward service with little to no support for locking in Cassandra.
- **Apple Visual Voicemail server:** Integrated Apple's IMAP based Voicemail client with IMAP message store with little documentation available for Apple client.

PROJECTS

(Github: https://github.com/WintersLt)

- **Genetic algorithm framework on Apache Hadoop YARN**. A framework that allows any genetic algorithm to be executed in cluster using Apache YARN for resource management. Java, YARN, HDFS
- **A Linux shell**. A shell similar to csh, with background job execution, pipes, input/output redirection and basic shell scripting support. C/C++
- **MPI Implementation.** A library similar to OpenMPI, that establishes communication and synchronization among processes in a cluster of nodes. C
- **Expertiza**. An open source academic course management system. Implemented module to periodically crawl the URLs submitted by students and check for any updates in the content at the URL. Ruby on Rails
- **Scraping Linkedin public profiles to figure out popular courses at a university**. I used google search APIs for collecting relevant profiles. Ruby

PUBLICATION

- **"Design of a Parallel Migrating Web Crawler".** The paper proposes a simple mobile agent based design for a web crawler (http://bit.ly/1VjDNMz). Published in IJARCSSE, 2012.

LANGUAGES AND TECHNOLOGIES

- **Languages:** C++, Pythons, Ruby, Python, R, CUDA, MPI   **Databases:** Cassandra, Openstack Swift, Oracle
- **Tools:** gdb, Valgrind, Wireshark, git   **Technologies:** RabbitMQ, Ansible, Rails