

Abhishek Kumar

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EDUCATION

Indian Institute of Technology Delhi, India
Bachelor of Technology (BTech) in Computer Science and Engineering Aug 2009 – May 2013

- CGPA (IIT Delhi): 5.9/10.00
- XIIth, CBSE, GIS, Delhi: 75.2% 2008
- Xth, CBSE, VVRS, Purnea: 92.6% 2006

Important Courses: Data structures, Introduction to Algorithms, Discrete Mathematics, Computer Architecture, Programming languages, Operating Systems, Computer Networks, Database Management, Software Engineering and Design practices

TECHNICAL SKILLS

Languages: C++, C, JAVA, Python, SQL, Shell Scripting
OS: Windows and Linux
Tools: Eclipse, MSVC, Source Insight, Wireshark, SVN, Apache web server, Apache tomcat web server

WORK EXPERIENCE

Software Developer, One97 Communications, Noida, India **July, 2013 – Present**

- **Ownership** of the OBD (OutBound Dialling), a major product, written in **C++**, deployed across PAN India and abroad at more than 500 servers
- Design, development and maintenance of OBD, with cross platform dependencies. Used STL, POSIX Threads and Sockets on Linux and Windows (MSVC).
- Parallelized the sequential processing logic of OBD, resulting in improved throughput
- Developed interface on top of open source VXML Interpreter, OpenVXI-3.4 and made appropriate changes in the interpreter to meet the needs
- Used tools like Valgrind and gdb for development purpose. Used Google Test unit testing framework to write unit tests. Developed multiple stubs for functionality check.

Internship, Symantec Corporation(R&D), Bangalore **May, 2011 - July, 2011**

- Used Aspect Programming in **JAVA** to add an extra layer of security in existing web application without changing in application code
- Built a basic authentication session application on Apache Tomcat and added third tier security using AspectJ libraries

Internship, SparkTG, Noida **May, 2012 - July, 2012**

- Integration of two open source platforms, Sphinx speech recognition engine and Asterisk telephony engine
- Updated modules of open source platform Zanzibar to meet the needs of the organisation

PROJECTS

Hardware Acceleration in Bio-Informatics, IIT Delhi Thesis (Prof. M, Balakrishnan)

Description: Certain problems in **bio-informatics** are inefficient in terms of space and time as they run **sequentially** on general purpose computer processor

- Aimed at developing custom **parallel and concurrent** processing elements
- Result would be faster computation and improved processing time of sequencing data
- Conceptualize and design of processing elements connected with FIFOs to facilitate **concurrent communication** with each other

Reverse bidding application, Database Course, CSE**Feb,2012 - May, 2012**

- Designed an application to return the **lowest and unique** bid among multiple bids
- Developed as a web application using **PgSql** as DB Engine and **PHP** as scripting language

Academic Search Engine, Software Engineering Course, CSE**July,2012 - Sept,2012**

- Design of a search engine which returns academic results upon a query based on various keywords
- Implementation of **distributed file system** using virtualisation to meet the data scalability

PintOS, Operating Systems Course, CSE**July,2012 - Nov, 2012**

- Introduced additional **system calls** for user programs, on base skeleton of PintOS
- Implemented **virtual memory** to remove the limitation of limited main memory for programs, **file systems** for variable file sizes.

Map based navigation system, Data Structures Course, CSE**Sept,2011 - Nov, 2011**

- Simulated navigation using traffic on a route and distance metric
- Provided web based server client support

ADDITIONAL INTERESTS

- Travelling, Videography, Music