VINAY KUMAR
PG Specialization: Computer Science Engineering
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Examination	University	Institute	Completion Year	CPI / %
M.Tech	Shivaji Univ.	Walchand College of Engineering, Sangli	2016	7.56
B.Tech (CSE)	MDU, Rohtak	KIIT College of Engineering, Gurgaon	2012	70.20
Intermediate/+2	C.B.S.E	Kendriya Vidyalaya No.1 Delhi Cantt	2008	75.00
Matriculation	C.B.S.E	Kendriya Vidyalaya AFS. Jorhat.	2006	83.00

INDUSTRIAL EXPERIENCE

Globant Technologies, Pune: [July 2015 – Present]

Delhi Transo Ltd. (Development Program at DTL, Delhi (ND))

Team Size **:** 15 Members [June 2010 – Aug 2010]
Tenure **:** 6 Weeks
Description **:** Training On "**Introduction to JAVA: SQL**"
Designation **:** Software Trainee

Responsibility:

- Assist the plant manager with the development of operative strategies
- Scheduling and controlling of production processes and preparing production documents.
- Handling plant records.
- Trained 5 trainees

Equipment's handled:

- Power transformers, shunt reactors, circuit breaker, current transformers, capacitive voltage transformers, surge arresters etc.

AREA OF INTEREST

- **High Performance Computing**
- Algorithms, Data Structures, Operating Systems and Mathematics.

SOFTWARE ENGINEERING EXPERTISE

- **Programming Languages :** C, C++, Java, C#
- **Scripting Languages :** CSS3, JavaScript, AngularJs, BootStrap, FlexBox, PHP
- **Parallel Programming:** OpenMP, OpenMPI, pthreads
- **Database :** Oracle 11g, Hadoop (on Single node)
- **Operating System :** Linux (Ubuntu 14.04), Windows 8.1
- **Versioning Tools :** GitHub
- **Profilers** : Gprof, perf

ACADEMIC PROJECTS

Post-Graduation Seminar II: "High Level Strategies for Parallel Shared Memory Sparse Matrix Vector Multiplication" under the guidance of **Prof. M.A Saha** (Jan'15- present)

Details:

- The sparse matrix-vector multiplication is an important computational kernel, but is hard to efficiently execute even in the sequential case.
- The problems—namely low arithmetic intensity, inefficient cache use, and limited memory bandwidth

- One of the newly proposed methods attains the best average result in experiments on a large set of matrices. In one of the experiments it obtains a parallel efficiency of 90 percent, while on average it performs close to 60 percent.

Post-Graduation Seminar I: "Cool" Load Balancing for High Performance Computing Data Centres
under the guidance of **Prof. M.A Saha** (Sept'14 – Dec' 14)
Details:

- In exascale machines, both peak power demand and total energy consumption have become prominent challenges.
- Proposed is a scheme based on a combination of limiting processor temperatures using dynamic voltage and frequency scaling (DVFS) and frequency-aware load balancing that reduces cooling energy consumption and prevents hot spot formation.
- Show cooling energy savings of up to 63 percent, with a timing penalty of only 2-23 percent.

Graduation Project: "Active City Administration (ACA) – An IBM TGMC 2012 Contest"
Name : Active City Administration
Role : Analysis and Coding
Database : IBM's DB2 Express-C
Front End : JSP (with HTML, CSS and JavaScript)
Team Member : 3 Members
Description :

- An user-friendly online interface for citizens to communicate with administrative body and to reduce the distance and time barrier between citizens and administration.
- Here people can share ideas, invoke discussions, issue complaints, and create suggestion/petitions for improvement of city administration.
- Also encourages the citizens to actively participate in city administration to bring transparency and flexibility in system.

Course project: "Well Meadows Hospital Management System (WMHMS)"
Role : Designing, Analysis and Coding
Database : Oracle 11g
Front End : .Net (with HTML and CSS3)
Description :

- It describes a small hospital specializes in the provision of health care for elderly people.
- Features is a description of the data recorded, maintained, and accessed by the hospital staff to support the management and day-to-day operations.

EXTRA -CURRICULAR ACTIVITIES AND AWARDS

- Valid **GATE 2014 Score of 475**
- Active Member of **HackerRank.com** having **HackOs 456**.
- **Hosting website**: www.gatehelpline.com – A free question answer portal for GATE Aspirants.
- Earlier Websites: www.dabanggengineers.com – An Engineers Portal.
- Attended Seminar **"Algorithmic Game Theory"** from MAX Plank Society, Germany Ministry for Education & Research during Dec 8 – 12, 2014.
- Attended Coursera's course on – "**Introduction to Heterogeneous Parallel Computing**" by Prof. Dr. Wen-mei Hwu – University of Illinois at Urbana Champaign.
- Attended a 2 day program on **"Hadoop – Big Data",** at WCE Sangli
- Made Changes in the Linux (Ubuntu 14.04) kernel and successfully compiled and run the OS.
- **JavaScript** Course at **CodeAcademy.com** completed.

PERSONAL PROFILE

Date of Birth : 17th December, 1990
Father's name : Rajender Singh
Gender : Male
Marital Status : Single
Languages Known : English and Hindi
Nationality : Indian
Strengths : Leadership skills, Self-confidence, possess sound time management, People relationship, communication skills and Strong team player.
Other Interests : Travel, Music, Playing Cricket, Football.