

Vishwesh Jatala

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Education

Indian Institute of Technology, Kanpur

July 2011-Present

Ph.D in Computer Science & Engineering

CPI: 9.0/10

Visvesvaraya National Institute of Technology, Nagpur

July 2005-09

B.Tech in Computer Science & Engineering

CPI: 9.23/10

Nalanda Junior College, Gangur

June 2002-04

Board of Intermediate Education, Andhra Pradesh

Percentage: 95.4%

Ph.D Thesis

Thesis Supervisor : Prof. Amey Karkare

- **Title:** Hardware and Software Optimizations for GPU Resource Utilization

Publications

- *Scratchpad Sharing in GPUs*, Vishwesh Jatala, Jayvant Anantpur, and Amey Karkare, in ACM Transactions on Architecture and Code Optimization (TACO), 2017.
- *Improving GPU Performance Through Resource Sharing*, Vishwesh Jatala, Jayvant Anantpur & Amey Karkare, 25th Symposium on High-Performance Parallel and Distributed Computing (HPDC), Kyoto, Japan, 2016.
- *Resource Sharing for GPUs*, Vishwesh Jatala, Jayvant Anantpur, and Amey Karkare, Code Generation and Optimization (CGO, Poster Track), Barcelona, Spain, 2016.

Talks/Presentations

- Poster Presentation on *Resource Sharing for GPUs*, IBM Research Day, IIT Kanpur, April 2017. [IBM Best Poster Award]
- *Improving GPU Performance Through Resource Sharing*, 11th Inter-Research-Institute Student Seminar in Computer Science (IRISS), Kolkata, Jan 2017.
- Poster Presentation on *Resource Sharing for GPUs*, Technology Day, IIT Kanpur, May 2016.

Academic Achievements

- Recipient of TCS Fellowship since 2014.
- Awarded *Institute Medal* for securing highest CPI in B.Tech, CSE, 2005-09.
- Awarded *Academic Excellence Prize* for securing highest CPI in B.Tech, CSE, 2005-09.
- Awarded *Dr.V.M. Dokras Felicitation Committee Prize* for the best performance in 3rd year B.Tech, CSE, 2007-08.
- Awarded *Academic Excellence Prize* for the best performance in 3rd year B.Tech, CSE, 2007-08.
- Awarded *Dr.S.G.Ghangrekhar Prize* for the best performance in Mathematics in 1st year, B.Tech, 2005-06.

Experience

- **IIT Kanpur**

Aug 2011 - Present

System Administrator

Duties involve resolving departmental network and computer laboratory issues. Also, maintaining various servers in the department.

Teaching Assistant

CS738: Advanced compiler Optimizations

CS335: Compiler Design

CS601: Mathematics for Computer Science

CS220: Introduction to Computer Organization

CS252: Computing Laboratory

CS639: Program Analysis, Verification and Testing

NPTEL: Fundamentals of Database System

CS602: Design and Analysis of Algorithms

Workshop on C Programming & Data Structures

- **IBM India Research Laboratory**

May 2013 - July 2013

Research Intern

I worked on a research project titled *Reliable Multicast using Software Defined Networking* during my internship. It aims to provide reliability for multi-cast routing protocol.

- **Oracle India Pvt Ltd**

June 2009 - July 2011

Member of Technical Staff

I was part of security penetration team, whose objective is to find the security vulnerabilities in a product and provide best possible solutions to make it secure.

Academic Course Projects

- **B.Tech Project:** Automatic Number Plate Detection System using HTM
- CS622: Cache Replacement Policy using Future and Reuse Distance
- CS738: Implementing Higher Level Loop Optimizations
- CS618: Semantic Searching Technique in Temporal Database
- CS632: Distributed Storage System for Mobile Devices

Technical Skills

Tools	GPU Ocelot, GPGPU-Sim, Cetus, Soot, Lex, Yacc, PIN
Programming Languages	C, C++, Java, and Pascal
Assembly Level Languages	PTX and MIPS
Scripting Languages	Perl Script and Shell Script
Parallel Programming	CUDA, OpenMP, and MPI
Network Programming	RPC, RMI, and Sockets
Query Languages	SQL, LINQ, and SPARQL
Web Designing	HTML and PHP

Extra Curricular Activities

- Organizing member for the event of *Paper Presentation* in AXIS-2006 at VNIT Nagpur
- Participated in the event of *Contraption* in AXIS-2006 at VNIT Nagpur
- Participated in gaming event of *IBM Software Context* in AXIS-2006 at VNIT Nagpur
- Finalist in the event of *Algo-Rhythm* in AXIS-2008 at VNIT Nagpur