Akash Kumar Dutta

Third Year Undergraduate
Department Of Computer Science and Engineering
Indian Institute Of Technology, Kanpur

akashdut@iitk.ac.in | +91-7054179587
AkashKrDutta
Blogs at https://akashkrdutta.github.io
Hackerrank Profile : CodexGamer

EDUCATION

Institute	Board/Branch	Result	Duration
Indian Institute Of Technology, Kanpur	B.Tech, Computer Science and Engineering	**CPI 9.8/10**	2015-2019 (Exp.)
Jamshedpur Public School	Grade 12 - CBSE (AISSCE)	**95**%	2015
Jamshedpur Public School	Grade 10 - CBSE	**CGPA 10/10**	2013

HONOURS AND ACHIEVEMENTS

SCHOLASTIC ACHIEVEMENTS

- Secured **All Indina Rank of** 144 in JEE Advanced 2015 among **1.5 lakh** candidates
- **Student Research Associate** at IIT Kanpur, designated for project in **Parallel Programming** during May-July 2016
- **Exceptional Performance** (A^* grade) in all courses in 1^{st} Semester with a **total of** 9 A^* till now, including the course Data Structure and Algorithm
- **Academic Excellence Award** 2015-2016 for meritorious academic performance in IIT Kanpur
- Secured **All India Rank of** 97 in Kishore Vaigyanik Protsahan Yojana(KVPY) conducted by IISc Bangalore and attended **Vijyoshi camp** at IISER Kolkata

PROGRAMMING ACHIEVEMENTS

- Secured **Rank 72** in Goldman Sachs Quantify 2016: Real life problems in competitive programming
- Secured **Rank 84** in Ad Infinitum18, a two-day Mathematical programming contest among 4060 participants on Hackerrank
- Secured **Rank 82** in 101 Hack 50, a 3 hours algorithmic contest among 2687 participants on Hackerrank

TECHNICAL STRENGTHS

Computer Languages : C/C++, CUDA, Python, C#
Skills : Competitive Programming, Cluster Management, Web Development, Shell Scripting
Tools : Kubernetes, Docker, Git, LaTeX, Vim, Unity, GCE, R, Octave
Platforms : Ubuntu, Linux Mint, Windows

RELEVANT COURSEWORK

Computer : Computer Networks*, Operating Systems*, Theory Of Computation*, Data Structure and Algorithm**, Computer Organization, Discrete Maths, Computer Logic
Mathematics : Probability and Statistics**, Abstract Algebra
*: Ongoing Courses
: **Exceptional Performance

WORK EXPERIENCE

Deployment Of Distributed Graylog Service And Bench-marking Databases

Software Developer Intern, JUSPAY *May-July 2017*

- Used **Kubernetes** to deploy **parallel, scalable and stateful** nodes in **GCE** and **AWS** of Graylog Service consisting of ElasticSearch and Mongo DB at back-end
- **Cluster management** and **API connections** for the Graylog and ElasticSearch Stateful Sets and Mongo DB Replica Set
- **Bench-marked Databases** focusing on Online Transactional use cases (OLTP) : Influx DB vs Timescale DB and Timescale DB vs PostgreSQL (specifically based on pg_partman)

Poisson Equation Solver

Student Research Associate *May-July 2016*
Supervisor: Professor Mahindra Verma

- Implemented **3-Dimension Multigrid Solver** for Poisson Equation using **Parallel Programming techniques in CUDA**
- Used **Thrust CUDA Library** and implemented Jacobi Iterator method for solving the Poisson Equation
- Reached a milestone of **80x performance improvement** for optimized parallel code against serial code

PROJECTS AND HACKATHONS

N-Body Simulation

Association Of Computer Activities (ACA) *Jan-May 2016*

- Simulated the path of more than **40 thousand particles** in a multiple object gravity field system using **Parallel Programming in CUDA**
- Used **Open CV** with CUDA to get the **real-time simulation**

Microsoft Code.Fun.Do *2015*

- Developed a universal app in **Visual Studio :** "Experience" in which people can share any of their travel and technological experiences

Google Hackathon *2016*

- Used **Unity** to design a game "RocknRoll"

CAMPUS ACTIVITIES

Programming Club : Secretary 2016-2017
ACA : Mentor for Particle Simulation Project 2017
CS : Maths Academic Mentor and Student Guide 2016-2017