

Akash Kumar Dutta

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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 9.6/10	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 India 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 1st 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, Elasticsearch, Logstash, Kafka, Zookeeper, Fluentbit, Git, \LaTeX , R, Octave
Platforms : Ubuntu, Linux Mint, Windows

RELEVANT COURSEWORK

Computer : Advanced Computer Architecture*, Computer Architecture, Computer Systems Security, Computer Networks, Operating Systems, Theory Of Computation, Data Structure and Algorithm**, Cyber Security of Critical Infrastructure*

Mathematics : Probability and Statistics**, Abstract Algebra

*: Ongoing Courses

** : **Exceptional Performance**

WORK EXPERIENCE

Distributed log collection and processing pipeline

Software Developer Intern, Tower Research Capital

May-July 2018

- Created a fault tolerant infrastructure for real time log processing across different teams in Tower that is end to end automated using **Elasticsearch-Kafka-Filebeats/Fluentbit** stack.
- Enriched logs** with **kubernetes metadata** for docker container logs, and extracted meaningful data from other logs using multi-line parsers, ruby filters, grok patterns across the pipeline.
- Automated pipeline**: New log sources incorporated without changing the config and created **helm charts** for deployments to make it a production ready cluster.

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
- 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, IIT Kanpur

May-July 2016

- 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

PROJECTS AND HACKATHONS

N-Body Simulation

Association Of Computer Activities (ACA), IIT Kanpur

Jan-May 2016

- Simulated the path of more than **40k particles** in a mutual gravity field system using **Parallel Programming in CUDA and Open CV**

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 Engine** to design a game "RocknRoll"

CAMPUS ACTIVITIES

Programming Club : Secretary

2016-2017

ACA : Mentor for Particle Simulation Project

2017

CS : Academic Mentor of Maths and Student Guide

2017