

# Akash Kumar Dutta

SECOND YEAR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING

Indian Institute Of Technology Kanpur

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“Never Give Up”

## Education

### Indian Institute Of Technology Kanpur

Kanpur, India

BACHELOR OF TECHNOLOGY, MAJOR IN COMPUTER SCIENCE AND ENGINEERING

2015 - 2019 (Expected)

- Cumulative Grade Point/CGPA : **9.73/10**

## Honors & Achievements

2016	<b>Institute Rank-1</b> , 1st Year	IIT KANPUR
2016	<b>Designated Junior Research Associate</b> , awarded for project in CUDA	IIT KANPUR
2015	<b>All Subject A stars (Exceptional Grade)</b> , Only Student to get A stars in all subjects in 1st sem	IIT KANPUR
2015	<b>All India Rank - 144</b> , Joint Entrance Exam Advanced, 1.5 million candidates	India
2015	<b>Merit Certificate Awardee, Overall 95%</b> , Class 12 National Exam CBSE	India
2014	<b>KVPY Scholarship Awardee</b> , Indian Institute Of Science and Government Of India	Bangalore, India
2014	<b>International Mathematics Olympiad Rank-25</b> , Science Olympiad Foundation	India
2013	<b>Cumulative Grade Point Average CGPA- 10/10</b> , Central Board Of Secondary Education (CBSE)	India

## Work Experience

### Parallel Programming

IIT Kanpur

JUNIOR RESEARCH ASSOCIATE, PROF MAHINDRA AGARWAL

May 2016 - July 2016

- Implemented 3-Dimension Multigrid Solver for Poisson Equation in CUDA.
- Extensive parallel programming methods used for enhancing code performance, much faster than serial code.
- Heavy parallel coding involved, optimization techniques and CUDA Libraries used.
- Code was an outline to be run on IIT Kanpur Supercomputer.

## Projects

### N-BODY Simulation in CUDA

IIT KANPUR

UNDERGRADUATE PROJECT, ACA (ASSOCIATION OF COMPUTER ACTIVITIES)

Jan 2016 - April 2016

- Demonstrates the path of a particle in multiple object gravity field systems using Parallel Programming.
- CUDA architecture was used together with Open CV to make the visual realisation.
- Much faster than serial code, implemented optimization techniques.

## Positions Of Responsibility

### Secretary

IIT Kanpur

PROGRAMMING CLUB

April 2016 - PRESENT

- Organised coding competitions and workshops in IIT Kanpur.
- Proposed projects for juniors based on our work experience.
- Important for upholding the programming culture of college.

### Mathematics Mentor

IIT Kanpur

ACADEMIC MENTOR

April 2016 - PRESENT

- Positioned for students well acquainted with mathematics knowledge.
- To enhance the mathematics culture of college by guiding juniors in mathematics.
- Helping the needy junior students to clear their doubts and help them in mathematics related matter.

## Student Guide

COUNSELLING SERVICE

IIT Kanpur

April 2016 - PRESENT

- Few senior students chosen as Student head are allotted to group of freshmen for guiding them.
- Helping freshmen get acquainted with the college system and culture.

## Skills

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**Programming :** C, C++, CUDA C/C++, Python.

**Web :** HTML, CSS, Javascript, Bootstrap.

**Operating Systems :** Ubuntu, Linux Mint, Windows.

**Utilities :**  $\text{\LaTeX}$ , CUDA, Git, GitHub.

## Relevant Courses

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- **Mathematics :** Real Analysis(A\*), Linear Algebra & Single variable Calculus(A), Discrete Mathematics, Abstract Algebra(A), Logic.
- **Computer Science :** Fundamentals Of Computing(A\*), Data Structures and Algorithms(\*), Computer Organization and Architecture(\*).
- **Others :** Introduction to Sociology(A\*), Introduction to Economics(\*)

A\*: Exceptional Performance

A: Excellent Performance

(\*): Course in progress

## Miscellaneous

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- Actively take part in Competitive Programming contests.
- Actively maintain my blogs at [akashkrdutta.github.io](http://akashkrdutta.github.io)