

#### SECOND YEAR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING

Indian Institute Of Technology Kanpur

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### 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	Academic Excellence Award, Institute Rank-1, 1s Year	IIT KANPUR
2016	Junior Research Associate, Designated for project in Parallel Programming	IIT KANPUR
2015	All Subject A stars (Exceptional Grade), Only Student to get A stars in all subjects in 1st sem	IIT KANPUR
2015	All India Rank - 144, Joint Entrance Exam Advanced, 1.5 million candidates	India
2015	ISI Qualifier, Qualified in Indian Statistical Institute (ISI) Examination	Kolkata, India
2015	Merit Cerificate Awardee, Overall 95%, Class 12 National Exam CBSE	India
2014	KVPY Scholarship Awardee, Indian Institute Of Science and Government Of India	Bangalore,India
2014	International Mathematics Olympiad Rank-25, Science Olympiad Foundation	India
2013	Cumulative Grade Point Average CGPA- 10/10, 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.
- 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

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 is used together with Open CV to make the visual realisation.
- Much faster than serial code, implemented optimization techniques.

# Positions Of Resposibility \_\_\_\_\_

**Secretary**IIT Kanpur

Programming Club

April 2016 - PRESENT

- Organized coding competitions and workshops in IIT Kanpur.
- Proposed projects for juniors based on our work experience.

Mathematics Mentor IIT Kanpur

ACADEMIC MENTOR

April 2016 - PRESENT

- Positioned for students well aquainted with mathematics knowledge.
- To enhance the mathematics culture of college by guiding juniors in mathematics.

 Student Guide
 IIT Kanpur

 COUNSELLING SERVICE
 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.



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

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

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

Utilities: LaTEX, Shell Scripting, CUDA, Git, GitHub.

## Relevant Courses\_\_\_\_\_

• 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(\*).
- Others: Introduction to Sociology(A\*), Introduction to Economics(\*).

A\*: Exceptional Performance

A: Excellent Performance

(\*): Course in progress

# Miscellaneous \_\_\_\_\_

- Actively take part in Competitive Programming contests.
- Actively maintain my blogs at akashkrdutta.github.io