

# Suhas Shankar

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## EDUCATION

### IIT KANPUR

BTECH IN COMPUTER SCIENCE

July 2023

CGPA : 9.8/10.0

### KAUST, SAUDI ARABIA

VISITING STUDENT

### CLASS XII

Score - 97.2%

### CLASS X

Score - 98.4%

## COURSEWORK

ESO207 - Data Structures and

Algorithms

CS203 - Probability for CS

ESC101 - Fundamentals of Computing

CS711 - Game Theory and Design

CS253 - Software Development

## SKILLS

### PROGRAMMING

LANGUAGES

• C • C++ • Java • JavaScript

FRAMEWORKS

• React • Nodejs • MongoDB • Elastic

CLOUD

• Docker • Kubernetes

## POSITIONS

### ACADEMIC MENTOR

MTH101 AND MTH102

Took classes for over 100 students in topics related to **Linear Algebra** and **Vector Calculus**

### STUDENT GUIDE

Assisted and mentored a group of 6 freshers to smoothly transition into college.

### SECRETARY

• **ASSOCIATION OF COMPUTING ACTIVITIES**

Jan 2021 - Present

• **MUSIC CLUB**

August 2020 - Present

## ACHIEVEMENTS AND AWARDS

### SCHOLASTIC

- **Academic Excellence Award** at IITK for exceptional academic performance.
- Secured **All India Rank (AIR) 246** in **Kishore Vaigyanik Protsahan Yojana (KVPY)**, 2018 and was awarded the **SX Fellowship**.
- Secured **All India Rank 944** in **JEE Advanced, 2019** among 0.2 million applicants.
- Secured **All India Rank 995** in **JEE Mains, 2019** among 1.2 million applicants.
- Qualified **National Standard Examination in Chemistry (NSEC)** and **National Standard Examination in Physics (NSEP)** also received **Top 1% Certificate**.
- Qualified for the **Indian National Chemistry Olympiad (INChO)**, 2018.

### PROGRAMMING

- Global rank of **366** in **Google Kick Start 2021 Round C** among over 11,500 people participating in the round.
- Global rank of **162** in **Codeforces Round #684** among over 10,200 participants.
- Winner of **Black Box - Fresher's Programming Contest** at IITK.

## EXPERIENCE

### TERASOLOGY | GSOC MENTOR 21'

Sep 2019 - Present | • Procedural Generation • Elastic Stack

- Set up the logging and metric monitoring pipeline for the game on kubernetes, complete with automated **SSL certificate management** and **Load Balancing**.
- Numerous Bug Fixes to the **Pathfinding** module of the game.
- Tested out implementations of optimisations such as **hierarchical pathfinding** based on research papers and created a **TutorialPathfinding** repository.
- Mentoring a **GSOC** project that deals with optimizations to world generation.

### EXTREME COMPUTING RESEARCH CENTER | PROF YING SUN

June 2020 - Present | KAUST

- Research intern at ExaGeoStat, an inter-disciplinary group between **ECRC** and the **Spatial Statistics Group** at KAUST.
- Optimised the non-stationary matern kernel to achieve a **speedup of 20%**.
- Working on the problem of **image segmentation** to identify different regions of non-stationarity in geospatial data to guide **parameter estimation**.

## KEY PROJECTS <sup>1</sup>

### AUTOGRADING ANSWER SCRIPTS | PROF PIYUSH RAI

July 2019 - Dec 2019 | Techstack: OpenCV, TensorFlow, MERN

- Used **OpenCV** to center and preprocess the images using techniques such as canny edge detection, **TensorFlow** to train ML models to recognise patterns in handwriting and built a **MERN** stack web application to serve as the interface.

### AI DEBATER | PROF SWAPRAVA NATH

Oct 2020 - Dec 2020 | Game Theory and AI Project

- Built a debater using NLP and Game Theory concepts. Paper can be found [here](#)
- Used **Neo4j** as the graphing database to construct the argumentation framework and **AllenNLP** to find relationships between texts of legal data.

### IITKBUCKS | PROGRAMMING CLUB, IITK

May 2020 - July 2020 | Summer Project

- Built a **Block-Chain** based cryptocurrency network with servers being able to concurrently mine blocks, as well as make transactions using **workers** in nodejs

PROJECT TITLES ARE CLICKABLE