

# 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

Karnataka PUC - 97.2%

### CLASS X

ICSE - 98.4%

## COURSEWORK

Data Structures and Algorithms

Probability for CS

Game Theory and Mechanism Design

Software Development and

Operations

## SKILLS

### LANGUAGES

C • C++ • Java • JavaScript

### FRAMEWORKS

React • Nodejs • Tensorflow • Elastic

### CLOUD

Docker • Kubernetes

## POSITIONS

### ACADEMIC MENTOR

Sept 2020 - June 2021

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

### STUDENT GUIDE

Sept 2020 - June 2021

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

### SECRETARY

### ASSOCIATION OF COMPUTING

### ACTIVITIES

Jan 2021 - June 2021

### MUSIC CLUB

August 2020 - June 2021

- Took part in Inter-IIT 2019

## 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)**, 2019 and was awarded the **SX Fellowship**
- Secured **All India Rank 944** in **JEE Advanced**, 2019 among 0.2 million applicants
- Qualified for the **Indian National Chemistry Olympiad (INChO)**, 2019
- Secured **All India Rank 995** in **JEE Mains** and **State Rank 31** in **KCET**.

### 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' | 🐙

Sept 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 **Google Summer Of Code** project that deals with optimizations to procedural generation of the world with **reactor**.

### 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%**
- Developing deep neural networks to classify different degrees of non-stationarity in geospatial data
- Working on the problem of **image segmentation** to identify different regions of non-stationarity in geospatial data to guide **parameter estimation**

## KEY PROJECTS

### AUTOGRADING ANSWER SCRIPTS | PROF PIYUSH RAI | 🐙

July 2019 - Dec 2019 | ESC101 | OpenCV, TensorFlow, MERN

- Used **OpenCV** to center and preprocess the images using techniques such as **Gaussian Blur** and **Canny Edge Detection**
- **TensorFlow** to train ML models to recognise patterns in handwriting
- Built a **MERN** stack web application to serve as the interface

### AI DEBATER | PROF SWAPRAVA NATH | 🐙

Oct 2020 - Dec 2020 | CS711 | Game Theory and AI Project

- Built a debater using NLP and Game Theory concepts. Report 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 from scratch
- Implemented fully functional miner nodes and achieved concurrency of mining blocks and receiving transactions using **workers** in nodejs