

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 - DS and Algorithms

CS203 - Probability for CS

CS641 - Modern Cryptology

CS711 - Game Theory and Design

CS253 - Software Development

SKILLS

LANGUAGES

• C • C++ • Java • JavaScript

FRAMEWORKS

• React • Nodejs • Neo4j • 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), 2019** 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 for the **Indian National Chemistry Olympiad (INChO), 2019**.

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 ¹

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 from scratch.
- Achieved concurrency of mining blocks and receiving transactions using **workers** in nodejs.

PROJECT TITLES ARE CLICKABLE