

Suhas Shankar

✉ suhass@iitk.ac.in | 📄 agent-q1.github.io | 🌐 agent-q1 | 📱 9900033079

EDUCATION

IIT KANPUR

BTECH IN COMPUTER SCIENCE

July 2023

CGPA : 9.7/10.0

CLASS XII

Karnataka PUC - 97.2%

CLASS X

ICSE - 98.4%

COURSEWORK

Data Structures and Algorithms

Intro to Machine Learning

Probability for CS

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**
- Qualified for the **Indian National Chemistry Olympiad (INChO), 2019**

PROGRAMMING

- Global rank of **366** in **Google Kick Start 2021 Round C**.
- Winner of **Black Box - Fresher's Programming Contest** at IITK

EXPERIENCE

OPTIVER | TRADING INTERN

May 2022 - July 2022 | Amsterdam

- Analysed a particular pattern in US Markets (**SPXW**)
- Came up with a suitable strategy to effectively exploit the observations made.
- **Backtested** the strategy and quantified how much money the strategy would have made in the market. Made reasonable assumptions about the **trade impact, path dependencies** and any other uncertainties.

GOOGLE | RESEARCH INTERN | 📄

Jan 2022 - Apr 2022 | Deep Learning | Prof. Prateek Jain

- Testing out SOTA Deep Learning techniques for **Time Series Forecasting** and identifying drawbacks.
- Testing out hypotheses related to:
 - effects of sampling on **SGD** for Time series optimisation.
 - **Multivariate Time Series Forecasting** for high dimensional data.
- Proposing and testing out new models inspired from **Transformer** based architectures and **Domain Adaptation**. Find our results here

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
- Mentored a **Google Summer Of Code** project that deals with optimizations to procedural generation of the world.

EXTREME COMPUTING RESEARCH CENTER | PROF YING SUN | 🌐

June 2021 - August 2021 | 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 and use it 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