

# Sandeep Kumar

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## EDUCATION

- **Indian Institute of technology Hyderabad** Telangana, India  
*Bachelor of Technology - Computer Science; GPA: 7.29* July 2018 - June 2022  
*Courses: Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning, Networking, Databases*

## SKILLS SUMMARY

- **Languages:** C, Python, C++, JavaScript, SQL, C, JAVA, Go, P4
- **Frameworks:** Scikit, SpaCy, TensorFlow, Keras, Django, Flask, NodeJS
- **Tools:** GIT, PostgreSQL, MySQL, SQLite
- **Platforms:** Linux, Web, Windows, Arduino, Raspberry, AWS

## EXPERIENCE

- **I'm Beside You - Tokyo, Japan** Remote  
*Software Developer Intern (Full-time)* Dec 2020 - Jun 2021
  - **Tech Stack:** .NET, Python, SQL, Scikit, Tensorflow, Keras
  - **Development:** Worked on full-fledged Windows Application Development with SQL and NoSQL transactions using .NET framework. Built analytic systems and predictive facial recognition models using simple CNN, VGG-16, Xception and compared their accuracies.
- **TeamAIBOD - Fukuoka, Japan** Remote  
*Software Developer Intern (Full-time)* Jan 2022 - Mar 2022
  - **Tech Stack::** Python, Scikit, Tensorflow, Keras, SQL
  - **Development:** Implemented a practical application of cashless system for unmanned cashless store "BAITEN-STAND". This next-generation unmanned store service combines high-precision image recognition technology using the unique design concept "AI Fusion" that combines optimal AI with "BioPay", a empty-handed payment service based on Glory's face recognition.
- **Indian Institute of Technology - Hyderabad, India** Remote  
*Research Assistant (Full-time)* May 2022 - Present
  - **Tech Stack:** P4: Programming language for controlling packet forwarding planes in networking devices, such as routers and switches; Python
  - **Development:** Working on implementing a design to monitor network traffic of IoT devices. We propose a scalable data plane primitive and a system on top of the primitive, together enforces MUD profiles of thousands of IoT devices in a programmable switch data plane.

## PROJECTS

- **Simulation of Musical chairs game (Multithreading, Multiprocessing):** Simulated musical chairs game which involves multithreading where each player is represented by a thread and implemented synchronization of threads using synchronization primitives(mutex locks and condition variables are used) (September '21)
- **Simulation of IMDB Database(Web Crawling, Data Analysis):** Starting with ER Diagram and designing Relational Schema, we have simulated the IMDB Database using PostgreSQL in pgAdmin (March '20)
- **LOGIRAY Compiler:** As part of course project for Compilers, Designed a programming language for array computations and logic programming. Built its compiler frontend using Lex and Yacc (September '19)
- **Smart street light system for highways:** Built a prototype for an energy-efficient street lightning system using Arduino. This system has the potential to cut energy consumption to 50% of current usage ( Dec '18)

## POSITIONS OF RESPONSIBILITY

- **TEDxIITH Hyderabad** Online Event  
*Finance Coordinator (Full-time)* (Jun 2020- Mar 2021)
  - **Key Responsibilities:** As a Finance Coordinator, my prime objective is about managing and planning a budget for the event, associating with sponsors regularly and managing schedules of the event.
- **Entrepreneurship Cell, IIT Hyderabad** Offline Event  
*Associate Manager (Full-time)* Jun 2019 - Dec 2020
  - **Key Responsibilities:** As an Associate Manager at E-Cell IIT-H, my prime objective is to develop the culture of thinking to prepare students for future entrepreneurial challenges. I managed finances for E-SUMMIT 2019, responsible for managing and inviting sponsors for the event.

## VOLUNTEER EXPERIENCE

- **Member of National Service Scheme** Telangana, India  
*Conducted blood donation and books donation camps impacting over 3000 students.* Jun 2018 - May 2022
- **Event Organizer at college community fest** Telangana, India  
*Organized events, conducted workshops and delivered workshops.* Mar 2018 - Apr 2018