# Akshat Agarwal

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#### EDUCATION

## BMS College of Engineering

Bachelor of Engineering in CSE(Data Science) (Current CGPA: 9.49/10)

#### Mount Litera Zee School

All India Senior School Certificate Examination(12th) (Percentage: 90.4)

## Air Force Golden Jubilee Institute

High School Education(10th) (Percentage: 88.6)

Bengaluru, Karnataka December 2022 - Present Nagpur, Maharashtra April 2021 - March 2022 Subroto Park, New Delhi April 2019 - March 2020

# Projects

Hope Scan(Click here) | Kotlin, Python, TensorFlow, JavaScript, Firebase, Deep Learning, Dialogflow

- Developed a one stop mobile application for lung cancer detection and awareness.
- Implemented secure data storage and authentication for user login and signup using Firebase.
- Integrated a deep learning model based on CNN to predict whether the uploaded CT scan shows lung cancer
  or not.
- Providing real time health news and dynamic educational content such as documentaries, recovery cases and lifestyle tips. Embedded a Dialogflow based agent for user interaction and queries, and added location services to show the nearby cancer healthcare centers.

Multi-Agent Research Assistant (Click here) | Python, CrewAI, LangChain, Ollama, SerpAPI, arXiv API

- Developed a **multi-agent** system that generates research summaries. Designed **intelligent agents** to research topics, fetch sources and summarize key findings.
- Integrated SerpAPI for web search and arXiv API for research paper fetching and analysis.
- Implemented modular pipeline along with dependency aware tasking that enhance accuracy, extensibility and scalability.

NovaFlex Fitness(Click here) | Flask, JavaScript, SQL, CSS, HTML

- Developed a website for fitness enthusiasts to find gyms and fitness centres nearby, access virtual workouts, and shop for fitness products.
- The website features user authentication and membership options including gold and platinum plans for personalized workouts, diet plans and live workout sessions.

Data Analysis on Indian Marriages (Click here) | Python, Pandas, NumPy, Matplotlib

• Performed Data Analysis on Census of India data set consisting of Age ranges and population by calculating gender ratios, maximum marriages and plotting graphs to analyse growth trends.

## TECHNICAL SKILLS

Languages: Java, C, Python, JavaScript, SQL, R, Kotlin

Libraries and Frameworks: Flask, Pandas, NumPy, Matplotlib, FancyImpute, TensorFlow, Keras, Node.js, Express.js, React.js

Tools: PostgreSQL, MongoDB, Neo4j, Firebase, Vercel, Docker, Jenkins, Prometheus, Grafana, GitHub

Additional: Data Structures and Algorithms, Operating Systems, Database Management Systems, Computer Networks, Software Engineering, Data Science, Data Analytics, Machine Learning, Deep Learning, Cloud Computing, Robot Process and Automation, Object Oriented Programming, Big Data Analytics

## Position of Responsibility

# DSync Club, BMSCE

Secretary

Jan. 2024 - Present

• Successfully opened and lead the **first Data Science club** of the college. Organised **seminars** on Data Science, MS Excel, Python and different libraries used in Data Science.

#### PhaseShift, College Technical Fest

#### Department Coordinator and Event Coordinator

Nov. 2023 - Dec. 2024

• Curated a three-round **coding competition** and a **seminar** on Data Analytics. Set up and managed **department stall** to showcase the **best projects** of the department.

# UTSAV, College Cultural Fest

Club Coordinator and Organising Committee Member

May 2023 - May 2024

• Led "Divine Detectives," a detective-themed event promoting teamwork and critical thinking. Coordinated "Chrono Bid," enhancing participants' time management and strategic bidding skills.