

Ayush Kasara

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Hyderabad, India

EDUCATION

Birla Institute of Technology and Science Pilani, Hyderabad Campus	Hyderabad, India
<i>B.E. in Mechanical Engineering; GPA: 7.83/10.00</i>	<i>Aug 2019 – Jun 2024</i>
<i>MSc. in Physics; GPA: 7.83/10.00</i>	<i>Aug 2019 – Jun 2023</i>

SKILLS

Languages: C/C++, Java, Python, SQL, Pandas
Technologies: Spring, Hibernate, JUNIT, Mockito

EXPERIENCE

Arbunize Digital Media	Remote, India
<i>Data Analyst</i>	<i>May 2021 – Aug 2021, Summer Intern</i>
<ul style="list-style-type: none">Collected data from over 1000 students based on their interests and used it to create a career prediction model.Compared the model's accuracy with student response achieving a highest accuracy of 82%. Implemented and worked on encoding and clustering data using, KNN classification and logistic regression to come up with the most appropriate model.	
MBB Labs Ltd.	Bengaluru, India
<i>Software Engineer</i>	<i>Jun 2023 – Dec 2023, Internship</i>
<ul style="list-style-type: none">Worked on deploying a report generation website using Dynamic Database Routing for Maybank Pvt. using JAVA, PL/SQL, JPA. Single instance website would eliminate the need of hosting the website from different servers helping with cost efficiency and simplicity.Worked on Unit Testing using JUNIT and Mockito for the application modules and increased its code coverage from 2 to 78 percent.	
GeoIQ	Bengaluru, India
<i>Data Analyst</i>	<i>Jan 2024 – Present, Internship</i>
<ul style="list-style-type: none">Worked on recognising brands from a large chunk of data using pandas, Found the most appropriate Search Term ngram corresponding to each brand to optimize data retrieval from the database.	

PROJECTS

Appointment Scheduler website. GitHub
<ul style="list-style-type: none">Designed and developed an Appointment Scheduler website allowing users to book various facilities such as classrooms, gyms, and schedule meetings with individuals or groups. Leveraged Java and Spring Boot frameworks in conjunction with Thymeleaf as the HTML template engine. Crafted user-friendly interfaces for effortless booking experiences and streamlined appointment and facility management with a robust backend.
Movie Recommendation System GitHub
<ul style="list-style-type: none">Developed a Movie Recommendation System using collaborative filtering techniques and MovieLens dataset with over 100,000 ratings.Implemented user-based and item-based collaborative filtering models, achieving an accuracy of 98% in predicting user preferences.
Methods for investigating the Forced Vibration Characteristics of a car
<ul style="list-style-type: none">Created a Quarter car dynamic model using springs and dampers and solved the relevant Linear time-invariant equations using Python.Studied the Transfer function and the Impulse response function by subjecting the model to varying magnitudes of driving forces.Found the resonant frequency of the system and the distance from the centre of mass where the net force should act for the most stability.
Gait Study of a Biped Robot

- Studied the Kinematics and Dynamics of a walking Biped Robot on a flat and uneven environment and simulated the same
- Solved the simultaneous 3D Linear Inverted Pendulum Model differential equations using python (matplotlib, odeint, scipy).

Credit Card Fraud Detection | [GitHub](#)

- Developed a Python-based Credit Card Fraud Detection model leveraging machine learning techniques. Implemented algorithms to analyze transaction data and identify fraudulent activities. Achieved a high accuracy of 92%, showcasing the effectiveness of the applied machine learning algorithms.
- Implemented performance curves such as Receiver Operating Characteristic and Precision-Recall curves for assessing the model.

EXTRA CURRICULAR ACTIVITIES

Organising and Pitching - Launchpad Launchpad is BITS Hyderabad's entrepreneurship summit hosted annually to support budding entrepreneurs from across the country, wherein I worked in managing funds and bringing in companies like ACT, Bada Business, Cornitos as sponsors.