



Sunaina Singh

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Course	College/University	Year	CGPA/%
M.Tech CSE- AI & ML	IIITDM Jabalpur	2024-26	8.8
Diploma in Data Science	IIT Madras	2023-25	7.37
Undergrad	UIT, BU, Bhopal	2019-23	7.83
Intermediate/+2	St. Teresa's Sr. Sec School	2019	84.2%
High school/10th	Carmel Convent Sr. Sec School	2017	9.2 CGPA

WORK EXPERIENCE

- **Teaching assistant | IIITDM Jabalpur** [Aug'24-Dec'24]
 - *Software Engineering* | Mentored students in designing and implementing software solutions for the Inventory Management and Purchase Module, intended for university-wide deployment, contributing to an ongoing system where several modules are already operational. Assisted in designing and evaluating assignments involving unit testing, debugging, and automated testing practices.
 - *OOPS in Java* | Provided hands-on mentorship in lab sessions, fostering strong programming skills and evaluating students' progress through structured weekly assessments.
- **Java Developer Intern | Vellko Media Pvt. Ltd.** [Jan'23-May'23]
 - Collaborated with a team of developers to design and implement new features for a web-based application using Java.
 - Worked closely with senior developers to learn and apply software development methodologies and techniques.
- **Tech & Non-Tech Blog Intern | Vizibly Media Pvt. Ltd.** [Nov'21-Jun'22]
 - Authored technical/non-technical blogs on the Medium platform.
 - Employed SEO strategies to create content. Find blogs [here](#).

PROJECTS

- **Sustainability Communication for Tourism Websites | Web Mining | Dr. A.C. Pandey** [Sept'24]
 - Developed a web usage mining-based recommendation system that analyzes user behavior to suggest personalized travel destinations, leveraging web scraping, NLP, and machine learning for classification based on sustainability, culture, safety, and affordability.
 - Enhanced recommendation accuracy using collaborative filtering, content-based filtering, and hybrid models, while employing graph-based ranking techniques (PageRank, link prediction) to analyze destination connectivity.
- **YoNet: Yoga pose classifier | Deep Learning | Dr. Aparajita Ojha** [Nov'24]
 - Implemented YoNet, a deep learning-based model for yoga pose classification, outperforming state-of-the-art architectures like ResNet, InceptionNet, and Xception, achieving 84% accuracy.
 - Leveraged depthwise separable convolution and graph-based spatial feature extraction to enhance classification accuracy while reducing computational complexity, integrating CNN techniques, batch normalization, and pooling layers for robust performance.
- **Academic Major Recommendation System | Social Network Analysis | Dr. A.C. Pandey** [Oct'24]
 - Designed a network-based recommendation system to suggest academic majors based on student preferences and course prerequisites, utilizing bipartite graphs, major-major projections, and Adamic-Adar link prediction for accurate recommendations.
 - Visualized student-major networks using centrality measures and weighted graphs, leveraging Python, NetworkX, Scikit-learn, Pandas, NumPy, Matplotlib, and Seaborn for analysis and implementation.
- **College ERP Project | Software Engineering | Dr. Kavita Rawat** [May'22-Mar'23]
 - Developed and implemented "College-ERP", a full-stack web application using Django, MySQL, and AdminLTE, enabling seamless management of student records, attendance, marks, and departmental orders while ensuring secure role-based access for administrators, teachers, and students.
 - Optimized college operations by automating manual workflows, integrating dynamic dashboards, data validation, and CRUD functionalities, significantly enhancing efficiency, accuracy, and real-time accessibility through a responsive, user-friendly interface built with HTML, CSS, JavaScript, and Django.

SKILLS & INTERESTS

- **Programming Languages:** Python, Java, C, C++, SQL, SpringBoot, Django framework
- **Tools & Libraries:** NumPy, Pandas, NetworkX, Matplotlib, Seaborn, Scikit-Learn, NLTK, Textblob, Plotly, Tensorflow, Torch, Git, GitHub, Postman, Maven, Gradle, Jupyter Notebook
- **Database:** MySQL, PostgreSQL
- **Miscellaneous:** Microsoft Azure, AWS, Cloud Computing Concepts, Agile Methodology, Containerization.
- **Interests:** Data Analysis, Machine Learning

RELEVANT COURSES

- **Deep Learning | Machine Learning | Generative AI | Computer Vision | Social Network Analysis** [IIITDMJ]
Web Mining
- **Mathematics | Statistics | ML Foundations & Techniques | Business Data Management** [IITM]
- **Data Structures and Algorithms | Operating Systems | Database Management System** [Bachelors]
Software Engineering

SCHOLASTIC ACHIEVEMENTS

- Qualified GATE in Data Science and Artificial Intelligence DA stream in the first attempt in 2024. Acquired 358 score, 37.67 marks, 6158 rank and 84.29 percentile. *Scorecard* [2024]
- Recognized for exceptional academic excellence in Computer Science with the Best Performance Award in Class 12. [2019]

CERTIFICATIONS

- **Microsoft Azure for Data Engineer** | Coursera | View Certificate [Jul'23]
- **Data Storage in Microsoft Azure** | Coursera | View Certificate [Aug'23]
- **Python Network Programming for Network Engineers (Python 3)** | Udemy | View Certificate [Jul'20]
- **Complete Python Developer in 2020** | Udemy | View Certificate [Aug'20]

EXTRACURRICULAR ACTIVITIES

Technical:

- Led backend team for College ERP project, coordinating sprint cycles and automated testing using Git.

Meet with Hon' Chief Minister of Madhya Pradesh

- As a representative of Air Wing NCC, India at the Fauji Mela 2023 in Bhopal, had the privilege of engaging in a one-on-one discussion with Shivraj Singh Chouhan, the Chief Minister of Madhya Pradesh, where we discussed a range of topics (Defense strategies & Indian Fighter Aircrafts).

National Cadet Corps [NCC]

- Air wing NCC A, B and C Certificate holder
- Attended several camps including IGC for AIVSC.

Tekniska, College fest of BUIT

- Core Coordinator for a coding competition for the University on different levels.
- Designed and managed questions for the contest.

Model United Nation Conferences

- Regular participant, Awarded several high commendations and best delegate positions, hosted by renowned Indian Universities.
- Enhanced communication skills by establishing connections between delegates throughout the world.

Sports

- Led and won the Inter-state Basketball tournament held in Gwalior.
- Roller-Skater, with participation and excellence in numerous district-level and state-level competitions.