Anushka Mandekar

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Education:

- **Bachelor of Technology in Computer Science and Engineering, Minor in Health Informatics** – Vellore Institute of Technology, Bhopal | GPA: 8.42 | Expected May 2026
- **12th Standard** – Nasik Presidency Junior College, Nashik, Maharashtra | GPA: 9.55 | Jun 2021
- **10th Standard** – Wisdom High International School, Nashik, Maharashtra | GPA: 9.25 | Jul 2019

Technical Skills:

Programming and Tools: Python (Pandas, NumPy, scikit-learn, Seaborn), SQL, DBMS, Microsoft Excel, Git, Google Workspace
Data Science: Machine Learning Fundamentals, Statistics, A/B Testing, EDA, Data Cleaning, Data Visualization.

Projects:

- **Malaria Detection GUI (August 2023):** Python, VGG-19, Tkinter
  - Addressed the need for a faster, more accurate malaria diagnosis in high-risk, low-resource settings.
  - Spearheaded development of an AI-driven GUI for automated malaria detection, leveraging deep learning-based image classification on 27,000+ blood smear images. Conducted comparative analysis of VGG-19 and custom CNNs to optimize accuracy, and integrated predictive analytics into an intuitive interface for early, reliable diagnosis.
  - Achieved our goal by performing end-to-end data analysis including exploratory data analysis, statistical profiling, and model evaluation, reducing misdiagnosis by over 40% and enabling early intervention.

- **Travel Itinerary generating website (March 2024)**: Python (Django), MySQL, HTML, CSS, JavaScript, Google Maps API
  - Identified a critical gap in travel planning caused by scattered data and generic recommendations.
  - Led development of a full-stack web app that generated personalized travel itineraries by analyzing 1M+ real-time datasets and user preferences. Integrated data from 1,050+ destinations and 1,500+ restaurants to curate optimized plans using rule-based filtering, behavioral logic, and Google Maps API for geolocation mapping.
  - Reduced user planning time by 70%, enhancing efficiency, cost-effectiveness, and user satisfaction.

- **Urban Growth Forecasting and Zoning Optimization System (April 2025):** Python, Google Earth Engine
  - Solved challenges of unplanned urbanization and resource misallocation by building forecasting models in Python to estimate population and infrastructure needs.
  - Developed a data intelligence system for urban planning within a 100 km radius of VIT Bhopal, integrating 3,000+ remote sensing data points, 8 government reports, and census data (1961-2011) to create 4 predictive models for land use optimization, population growth, water scarcity, and traffic flow.
  - Empowered local planners with a holistic view of their region, enabling them to make more integrated, sustainable, and forward-thinking decisions that directly improved the quality of life for residents.

Co-curricular Activities:

- Engineered a prototype at American Express Hackathon for automated financial planning, integrating real-time spend analysis and simulating a 15% increase in user savings by optimizing spending patterns.
- AI Researcher and Developer – Omdena Nepal Local Chapter (2023): Collaborated with a global team of 52 researchers to develop a web-scraping pipeline, providing data-driven insights that led to actionable recommendations on media inclusivity for media outlets.

Extracurricular Activities:

- Chief Editor, School's Newspaper (3 years): Led a 15-member team and boosted readership by 30%
- Demonstrated excellence in public speaking and debate in school, earning 2-time Debate Champion status and Orator of the Year recognition.
- Core Marketing Team Member, Health-O-Tech Club, university: Organized 5 health awareness campaigns, reaching 500+ students.

Certifications:

- IAMNEO Data Science using Python
- Google Digital Marketing and E-commerce
- INSPIRE Scholarship for higher education by DST, Maharashtra - Recognized for academic excellence in STEM fields