Shrestha Singh

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Experience / Internships

Indian Space Research Organization (ISRO) - ML Intern (Fall '23):

- Analyzed satellite data to develop an algorithm for cyclone area prediction, enhancing prediction accuracy by 15%.
- Applied ML models to wind remote sensing statistics using CYGNSS satellite data, improving data analysis efficiency by 20%.
- Integrated the solution with **AWS** for scalable processing, reducing computation time by 30%.

Indian Meteorological Department - IoT/ML Intern (Summer '23):

- Engineered a bidirectional visitor counter using Raspberry Pi Pico, integrating magnetometers, IR sensors, and ultrasonic sensors, resulting in a 25% increase in accuracy.
- Designed real-time data visualization using Python and SQL, improving data accessibility by 40%.
- Constructed a big data processing pipeline using Hadoop and Spark for analyzing large datasets, increasing processing efficiency by 50%.
- Executed ETL processes and performed data visualization with **Tableau**, leading to 35% better insight generation.

National Remote Sensing Center - Data Science Intern (Summer '24):

- Created a multilingual chatbot (supporting Hindi, English, and Bengali) and an AI monitoring system by fine-tuning visual language models for judiciary sector projects, improving response accuracy by 20%.
- Built a comprehensive verification dashboard with **JavaScript** Framework - React.js and GIS, increasing verification efficiency by 25%.
- Deployed the containerized solution on **Azure**, reducing deployment time by 30%.

Education

B. Tech (CSE) AI and Robotics, Vellore Institute of Technology, Chennai (Aug '21 - Ongoing) CGPA: 8.56/10

Class XII, Laxman Public School, New Delhi (July '20): 92.6%

Class X, Laxman Public School, New Delhi (May '18): 91.6%

Achievements

Qualified in **IEEE** YESIST'23 hackathon TOP 50 teams	Top 10 teams in **Intel** x Awiros App-a-thon
Winner of **Samsung** generative AI hackathon	TOP 15- IISF'23 Space hackathon by **ISRO**
Won **Valeo** Sustainability hackathon	1st prize Hackerspace (CTF) conducted in VITC

Projects

Seamless Multimodal AI Toolkit: Developed a comprehensive AI toolkit that integrated Automatic Speech Recognition (ASR), Text-to-Speech (TTS), and large language models (LLM) across 11 Indian languages; enabled multimodal interactions, enhancing user engagement and reducing processing time by 40%, Winning Project Under **Samsung** Prism **Gen AI** Hackathon.

Offline Learning Aid App for Dyslexic: Developed an offline mobile application utilizing **Java**, Python, OCR, TTS, NLP, and CV to assist individuals with dyslexia. The app features text conversion and TTS capabilities, enabling more accessible reading and learning experiences, improving reading speed by 20%. Hosted the backend services of the app on **Google Cloud Platform**.

E-commerce Platform Development: Spearheaded the development of a comprehensive e-commerce platform utilizing **Java, Spring Boot,** and SQL; integrated user authentication and order processing features, boosting customer engagement by 25% and reducing checkout time by 40%.

Technical Skills

Data Analysis, Machine Learning, MLops, Matplotlib, Seaborn, Statistical Analysis, Python, SQL, Excel, C++, C, Java, JavaScript, React.js, Node.js, Docker, Git, Agile Methodologies

Responsibilities

Marketing Head – Android Club VIT'C:

- Managed marketing campaigns and strategies, increasing event participation by 30%
- Coordinated with cross-functional teams, enhancing collaboration by 20%

Vice President – Debate Society VIT'C (Secretary Finance):

- Led debates and managed financial records, ensuring a 25% increase in budget accuracy
- Ensured activities were well-funded and strategically planned, improving event quality by 20%

Certification

Google Cloud Career Practitioner by GDSC	**Google Analytics and Tag Manager** by Google Analytics
Data Analytics and Visualization by Accenture	**Entrepreneurship Course Certificate** by NPTEL