

Aman Raw

AI/ML Developer at Jio Platforms

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Education

Bachelor of Technology (B.Tech), Computer Science and Engineering Indian Institute of Technology Kanpur, Kanpur, India	<i>Jul19 - May23</i>
Class XII (CBSE) , Jawahar Navodaya Vidyalaya, Bundi, Rajasthan Percentage: 87.8%	<i>Jul17 - May18</i>
Class X (CBSE) , Jawahar Navodaya Vidyalaya, Firozabad, Uttar Pradesh CPI: 9.8/10.0	<i>Jul15 - May16</i>

Scholastic & Curricular Achievements

- Secured All India Rank 6116 in JEE Advanced 2019 among 2.3 lakh candidates.
- Achieved All India Rank 9331 in JEE Mains 2019 with 99.2 percentile among 12 lakh candidates.
- Selected among 400 students from all JNV schools across India for Dakshana Selection Test (NDST) 2016.
- Awarded the Ratti Chhatr Scholarship by Panasonic (2019), selected among top 30 students from all 23 IITs.

Work Experience

Jio Platforms Limited <i>AI/ML developer</i> <i>backend developer</i>	<i>Aug23 - Present</i>
<ul style="list-style-type: none">Developed an automated PowerPoint generator using LLaMA 3.1 and ‘python-pptx’, powered by GenAI for content creation.Incorporated RAG for context-aware slides and custom LaTeX compilers for advanced formatting.Developed a comprehensive end-to-end lip-sync and expression-based Speaker 25fps video generation platform.Engineered two cutting-edge architectures for lip-sync and expression enhancement, driving a significant 30 % increase in video quality and accuracy in the generation of speaker videos at 25 frames per second.Applied a GAN-based network for lip mask generation, integrating a speaker identity encoder based on a stack of 2D CNNs for improved lip movement prediction.Engineered a multi-language speech generation system with voice cloning functionality for 13 Indian languages, leveraging Generative AI models and Stable Diffusion architecture.Combined reference speaker embeddings to extract voice features for cloning reference speaker’s style and tone.Built and Enhanced the video generation platform with extensive use of FastAPI and PyTorch frameworks, enhancing performance and scalability for superior output.Contributed to the Jiomeet platform as a backend developer, implemented REST APIs using Node.js framework for 2 months.Added a robust language identification system using pre-trained transformer models and VoxLingua107 in video transcription.Optimized performance for 13 Indian languages, improving the accuracy and effectiveness of language detection.	

Micron Technology Operations India LLP <i>Firmware Engineer Intern</i>	<i>May22 - Jul22</i>
<ul style="list-style-type: none">Revamped Python tool for code standards verification, reducing manual code review by 85%.Refined RDTF testing framework, improving stubbing for independent domain testing for all 3 domains.Implemented 4 coding checks, including banning recursive functions, and contributed to code reviews to enhance quality and collaboration.	

Projects

Smart Aquarium-IoT Project 🤖	<i>Mar22 - Apr22</i>
<ul style="list-style-type: none">Designed real-time monitoring system for pH (6.8 - 7.8) and luminosity using Raspberry Pi and Arduino.Designed an automated water pH adjustment and brightness control system (10 - 20 lumen) using solenoid valves.Created mobile application for remote monitoring (24*7) of water quality metrics.	
Django - DigiSchool IITK 🤖	<i>Feb22 - Mar22</i>
<ul style="list-style-type: none">Crafted an engaging educational platform for 6th to 12th-grade students with a team of 10 members.Deployed communication system that combined course material accessibility with interactive discussion forums in version 2.0.Enhanced student-teacher interaction with integrated communication tools, such as announcement and chat functionality.	

Technical Skills

- Languages:** C, C++, Python, Octave/Matlab, Assembly, Java
- Tools:** Git, Docker, LaTeX, Shell, vim
- AI/ML frameworks:** PyTorch, TensorFlow, scikit-learn, Keras, GenAI, RAG, LLM
- Backend development:** Node.js, MongoDB, MySQL, Django

Relevant Courses

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|--------------------------------|---------------------|----------------------|
| • Data Structures & Algorithms | • Computer Networks | • Compiler Design |
| • Operating Systems | • Machine Learning | • Internet of Things |