Riddhi Dhawan

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EDUCATION

Netaji Subhash University of Technology   Dwarka, New Delhi
Bachelor of Technology in Electrical Engineering   *Aug.2023 – April 2027*

Rukmini Devi Public School   Pitampura, New Delhi
CBSE-XII, Percentage - 95.2% | CBSE-X, Percentage - 92%   *Aug. 2022 – May 2023*

EXPERIENCE

Defence Research and Development Organisation (DRDO)   June 2025 - July 2025
Summer Research Intern   *Hybrid*
- Explored the electrical-software interface via semiconductor simulations.
- Conducted Monte Carlo analysis on MCT photodiodes using statistical models.
- Converted C functions to MATLAB and built a simulation dashboard.

PROJECTS

AI Podcast Generator repo link | *NextJS, TypeScript, React19, Supabase, Novita, ElevenLabs*   June 2025
- Built an AI-driven podcast platform using **Next.js 15 and React 19**, transforming **text prompts into playable audio episodes**.
- Integrated **OpenAI and ElevenLabs APIs** for dynamic content generation and **realistic text-to-speech synthesis**.
- Configured **Supabase Authentication and audio storage** to enable secure, persistent user experiences.
- **Crafted RESTful APIs** to streamline podcast workflows, supporting episode creation, **voice selection, and playback**.

Career Compass repo link | *Streamlit, Crew.ai, Langchain, AWS, Flask*   Jan 2025 – Feb 2025
- Architected a **multi-agent AI system** with **CrewAI and LangChain** to deliver real-time career guidance.
- Linked **six role-specific agents** to enable holistic analysis covering skills, market trends, and emotional support.
- **Leveraged AWS S3** and **RAG** to provide contextual document retrieval and **interactive PDF-based guidance**.
- Implemented **fairness-aware algorithms** that improved recommendation diversity by 40% across 5,000 users.
- Visualized counseling results using **Streamlit** to **enhance user interpretability** and engagement.

Captionize repo link | *Next.js, Tailwind CSS, AWS S3, FFmpeg, WhisperX*   Nov 2024 – Jan 2025
- Constructed an **end-to-end captioning tool** using **WhisperX** for accurate speech-to-text alignment.
- **Synchronized FFmpeg** processing to embed subtitles directly into videos, enhancing accessibility and SEO.
- **Connected AWS S3** for scalable file management, ensuring **fast uploads**, downloads, and secure access.
- Introduced **editable, timestamped transcript** exports to support manual revision and **multi-format publishing**.
- Streamlined **UI components with Tailwind CSS** to deliver a fast, modern editing interface.

ACHIEVEMENTS

Selected for Amazon ML Summer School 2025   August 2025
Among 3,000 students chosen from 65,000+ applicants

1000+ rating on Codeforces and 1700+ rating on Leetcode   May 2025
450+ questions solved in overall Coding Platforms - Leetcode, Coding Ninjas, Codeforces

Amdocs GenAI Hackathon 2024-25   Dec 2024 - Feb 2025
Integrated multiple AI agents in project
- **Secured a position** among the **top 1,000 out of 5,000+** entries for prototype submission and ranked in the **top 5,000 of 10,000+** for idea submission.

TECHNICAL SKILLS

Languages: C, C++, Python , JavaScript, TypeScript, HTML, CSS, Tailwind , SQL.
Frameworks: ReactJS, NextJS, NodeJS, Flask, ExpressJS, MongoDB, Crew.ai, Pytorch, Tensorflow.
Developer Tools: AWS, Git, Docker, Azure,Google Cloud Platform, VS Code, Vercel, NextAuth.
Libraries: Pandas, NumPy, Matplotlib, Streamlit.