ABHIJEET DUBEY

VIT BHOPAL | Computer Science and Engineering [AI & ML]



EDUCATION

VIT BHOPAL | BTech, Computer Science and Engineering [AI & ML]

9.30/ 10 CGPA

Activities: Core Member @ UI/UX club. VIT BHOPAL

WORK HISTORY

TEACHING ASSISTANT | VIT BHOPAL - Pi Mathematics Society

[March 2024 - May 2024]

[Sep 2023 - May 2027]

- · Selected as a T.A., a special class designed for students eager to resolve doubts or learn specific topics in-depth outside class hrs.
- Delivered supplemental instruction and provided personalized assistance to students, enhancing their understanding of complex mathematical concepts.
- · Facilitated interactive learning sessions, encouraging active participation and fostering a collaborative learning environment.

PROJECTS

Speech-to-Speech Translator | Dr. Pratosh Kr. Pal

October 2024 - December 2024

- Developed an Al-powered real-time speech translator that converts spoken English into Hindi, Spanish, Bengali, Tamil, and French with natural voice output.
- Engineered a fully offline translation pipeline, enabling speech recognition, text translation, and speech synthesis without requiring a GPU or internet connection.
- Integrated Whisper (speech recognition), MarianMT (text translation), and Tacotron (speech synthesis) to ensure smooth, real-time performance.
- Designed a lightweight, user-friendly interface with live voice input and instant playback, making translation accessible on low-end laptops.
- Optimized for low-latency processing, ensuring smooth and near-instantaneous translations for real-time communication.

Auction Platform

- Developed an auction platform enabling users to list items, place multiple bids, and sell products, creating a dynamic marketplace experience.
- · Implemented core features including user registration and login, item listing, bidding functionality, public comments & more.
- Designed a simple and user-friendly interface with live voice recording and instant playback.
- Focused on low-latency performance, ensuring smooth and fast translations.
- Overcame challenges in audio processing, language models, and real-time speech synthesis to deliver an efficient and reliable solution.

ABHIJEET EDULAB - Founder & Content curator

[April 2021 - May 2022]

- Launched an educational website to curate and streamline top-quality educational videos and articles, addressing the issue of resource overload during the COVID-19.
- Achieved a global reach with 6,000 views within the first two months of operation, demonstrating significant user engagement and the demand for well-curated educational content.
- Provided valuable educational resources that supported students and lifelong learners during a critical time, fostering a community of engaged users seeking high-quality information.

ACHIEVEMENTS

Certification - NPTEL CLOUD COMPUTING IITKGP

• Successfully completed the Cloud Computing certification course from IIT Kharagpur (NPTEL), earning the "Elite + Gold" distinction and securing a position in the top 1% of learners nationwide.

Certification - Harvard University CS50 Web Programming with Python and JavaScript

- Successfully completed the CS50 course "Web Programming with Python and JavaScript" with certification, which includes seven comprehensive
 projects
- Gained hands-on experience in developing web applications using modern technologies such as Django, Python, JavaScript, HTML, CSS, and Models
- Developed a deep understanding of web frameworks, such as Flask and Django, and applied them in building dynamic and responsive web applications
- Demonstrated the ability to integrate APIs, manage user authentication, and deploy web applications.

SKILLS AND EXPERTISE

Skills: Machine Learning, Cloud Computing, Web Programming, Socket Programming, Object Oriented Programming, Computational Analysis Languages: C/C++, Python3, Bash, SQL (Postgres, MySQL), Java | Basic: JavaScript, MongoDB Atlas

Platforms/Tools: Django, Git, GNU/Linux, MS Azure| Models, POSIX pthreads, C++STL, NumPy, Torch, TensorFlow, Scikit-learn

RELEVANT COURSEWORK

Probability, Statistics & Reliability | Discrete Mathematics & Graph Theory | Linear Algebra | Database Management Systems | Operating Systems | Computer Networks | Digital Logic & Computer Architecture | Data Structures and Analysis of Algorithms | Advanced Calculus & Laplace Transform

REFERENCE

Name: Dr. Ashish Kumar Kesarwany Assistant Professor, VIT BHOPAL University

Email: ashishkumarkesarwany@vitbhopal.ac.in