# 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.
- Played a key role in supporting peers' academic success, contributing to a positive and productive educational experience.

#### **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.
- Collected and organized content from reputable sources across the web, ensuring the high standard of educational content and accessibility.
- Provided valuable educational resources that supported students during critical time, fostering a community of engaged users.

# **ACHIEVEMENTS**

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 | Cloud Computing |

## **REFERENCE**

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

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