# VISHAL BANSAL

Bharatpur, RJ  $+91\ 9057291541$ ♦ Website

#### **EDUCATION**

National Institute Of Technology, Bhopal, Bachelor of Technology

Nov 2020-April 2024 Electronics and Communication Engineering CGPA: 7.58

**SKILLS** 

**Languages:** Python, Java, JavaScript, TypeScript, C++

Technical: Data Structures and Algorithms, Machine Learning, AI Model Training, Code Generation

Problem Solving, Code Review, Technical Writing, Git, GitHub

Soft Skills Technical Communication, Attention to Detail, Problem Analysis, English Proficiency, Critical Thinking

**EXPERIENCE** 

### Software Backend Intern, ZuAI

Apr, 2024 - June, 2024

- Developed and trained AI models for data analysis and content generation, implementing algorithms to process and analyze large-scale Discord data, demonstrating strong problem-solving skills in complex data scenarios.
- Implemented RAG architecture and vector embeddings to enhance AI model performance, evaluating and ranking generated content quality through automated metrics and human-in-the-loop feedback.
- Collaborated with AI researchers to fine-tune language models, articulating complex technical concepts and contributing to model evaluation documentation with attention to detail.

# Software Backend Intern, ShopOut

June, 2024 – Current

- Engineered an AI-powered video summarization system using advanced language models, implementing code generation techniques for automated content processing across multiple programming languages.
- Designed and optimized machine learning pipelines for multi-language translation, developing evaluation frameworks to assess and rank AI-generated outputs for quality and accuracy across 8 Indian languages.
- Led the implementation of voice synthesis models, crafting detailed technical documentation and conducting thorough code reviews to maintain high-quality standards.

## **PROJECTS**

Business Intelligence Using Deep Learning and NLP: Developed machine learning models for business intelligence applications, focusing on natural language processing and deep learning techniques. Implemented model deployment pipelines and created comprehensive documentation for data analysis workflows.

Tech Stack: Python, TensorFlow, PyTorch, NLP, Machine Learning

Advanced Computer Vision Processing: Implemented advanced computer vision techniques using deep learning frameworks. Developed and optimized neural network architectures for image processing tasks.

Tech Stack: Python, TensorFlow, PyTorch, Computer Vision

Real-time Transcription Tool: Built a live transcription system using OpenAI's GPT-3.5 for generating suggested responses from audio input. Implemented real-time processing of microphone input and speaker output.

Tech Stack: Python, OpenAI API, FFmpeg, Audio Processing

Training and Fine-Tuning Large Language Models: Participated in a hands-on workshop to explore training and fine-tuning large language models. Implemented practical solutions using large datasets, prompt engineering, and fine-tuning to enhance model performance.

Tech Stack: Python, Hugging Face Transformers, PyTorch, OpenAI API, Prompt Engineering

# **ACHIEVEMENTS & CERTIFICATIONS**

- CodeKaze By Code Studio AIR: 331 out of 1.6 Lakh+ students and College Rank:2
- Solved over 800+ questions on DSA and SQL across platforms including Codeforces and LeetCode.
- Codathon By NIT Bhopal: Achieved a Rank of 431 All over India out of 6700+ students
- HackerRank Problem Solving (Basic), Problem Solving (Intermediate), SQL (Basic), Python.
- LinkedIn Skill Assessment OOPs, C++

#### EXTRACURRICULAR ACTIVITIES

- Core Team Member Zenith, Programming Club MANIT
- Sponsorship Head Maffick'23 (Cultural Fest of NIT Bhopal)