SAMRUDDHI DEVENDRA BHABAD

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Summary-

As a dedicated Computer Science undergraduate, I thrive on innovation and leadership, having led teams to victory in 6 national hackathons. Skilled in AI-powered chatbots, scalable web architecture, REST and Fast APIs. Proficient in TensorFlow, Python, Django. Passionate about developing AI-driven solutions that push the boundaries of technology.

Education

Savitribai Phule Pune University   **2021-2025**
Bachelor of Engineering in Computer Science, Honours in ML, DS   *GPA-8.8/10*

Experience

AI Intern   **Coneixement India (OPC) Pvt. Ltd.**
August 2024 – Present   *AI-Driven Career Guidance Platform*

- Led the development of an AI-driven career guidance platform for students worldwide, incorporating a dynamic questionnaire and generating comprehensive reports to enhance career decision-making.
- Improved report accuracy by 30% through advanced data analysis and model optimization using TensorFlow and Python.
- Developed RESTful APIs with FastAPI to enhance system scalability and performance by 40%.

AI Research Intern   **University of Galway, Ireland & IIIT Raipur**
September 2024 – Present   *RAG-Based System for Natural Language Understanding*

- Conducting research on RAG systems and code generation for Android SDK using LLM.
- Directed and fine-tuned transformer models using PyTorch, resulting in a 20% increase in information retrieval accuracy for complex queries.

Summer Industrial Trainee   **Intel Corporation**
June 2024 – August 2024   *CLEAR: Contract Language Evaluation and Risk Analysis*

- Pioneered an NLP-based system for analyzing and summarizing business contracts, reducing review time by 50% through automated clause classification and risk detection.
- Optimized model performance by 25% by implementing advanced entity recognition and custom preprocessing pipelines using Python and Spacy.

SDE Intern   **Website Vikreta**
May 2024 – July 2024   *Web Performance Optimization*

- Improved website performance by 40% through the implementation of scalable web architectures and optimization strategies in NextJS.
- Spearheaded an increased deployment rate of 60%
- Created RESTful APIs to enhance backend functionality, ensuring seamless data flow between client and server, resulting in a 30% improvement in response times.

SWE Trainee   **Datanomics Pvt. Ltd.**
January 2024 – May 2024   *Backend Systems and API Integrations*

- Devised backend systems and API integrations using Java, Node.js, and React, improving application scalability and performance by 40%.
- Implemented RESTful APIs, resulting in a 30% increase in system responsiveness and enhancing code quality, reducing bug rates by 20%.

AI ML Intern   **Varahi Technologies**
October 2023 – January 2024   *DivisionQ: AI-Powered Chatbot*

- Designed and developed DivisionQ, an AI-powered chatbot using TensorFlow and Python to handle and route queries across diverse business divisions, reducing query handling time by 60%.
- Engineered sophisticated automation and optimized routing algorithms, boosting operational efficiency and enhancing user satisfaction by 25%.

Intern   **Materials Info Pvt. Ltd.**
July 23 – September 2023   *Material Recommendation System*

- Spearheaded a system to recommend materials based on user inputs such as temperature tolerance and density, enhancing material selection accuracy by 35%.
- Collaborated with cross-functional teams to gather requirements and ensure the system met industry standards and user needs.

Technical Skills

- **Languages/Databases**: Python, C++, SQL (MySQL, Postgres, MongoDB), JavaScript, JavaScript & ETL Frameworks, HTML/CSS
- **Frameworks**: TensorFlow, FastAPI, REST API, Django, Node.js, React
- **Developer Tools**: Power BI, Git, Docker, SharePoint, Postman, Google Colab, Kaggle, Visual Studio Code, PyCharm
- **Libraries**: NumPy, Pandas, Matplotlib, Seaborn, Streamlit, Plotly

Projects

Sign Language Translator | *TensorFlow, Python, Pandas, Django*
- Engineered a CNN model to transform complex ASL gestures into accurate and contextually relevant text to enhance gesture translation accuracy by 40%, leading to a 25% improvement in user interaction within the first three months.

Task Manager | *HTML, CSS, Django, REST Framework, Postman, API Authentication*   View
- iTasks, a task management web application, that allows users to organize tasks with customizable priorities, deadlines, and progress tracking, along with challenge-based goal setting to boost productivity
- Currently used by over 500 users, contributing to enhanced task completion rates and consistent daily active usage

Chest Disease Prediction | *TensorFlow, Python, Image Preprocessing, Django, RESTful API, MySQL*
- Engineered a GAN model to revolutionize pulmonary disease prediction by synthesizing highly realistic chest X-ray images.
- Curated and preprocessed an extensive dataset of chest X-ray images using TensorFlow, facilitating optimal model training and achieving an 87% accuracy rate in disease prediction.

Publications

- * **The AI-Zero Trust Alliance: Reinventing Cybersecurity for the Digital Age** (Elsevier - Apple Academic Press)
- * **Intelligent Systems for Covid-19: A Comprehensive Review** (Accepted, to be published in Taylor & Francis)
- * **Advancements in Conversational AI: A Survey of Chatbots and Voice Assistants** (Will be presenting at an international IEEE Conference)
- * **Career Guidance in the Age of AI: Opportunities, Challenges, and Future Directions** (In communication for IEEE)

Achievements

- * 3-star coder on CodeChef and LeetCode; 5-star Coder on HackerRank. Secured a global rank of 113 and a national rank of 25; Finalist at PICT Lady Ada Programming Queen Contest
- * Led my team to win 6 national-level hackathons, till date.
- * 2nd round finalist at Avishkar- National Research Competition (Ongoing as of now)
- * 2nd round finalist at DYP Research project Competition(Ongoing as of now)
- * Contributed to multiple open-source projects
- * Write Tech Based articles at Entech Magazine- Read; Resulting in a surge in reading by 42%, ranked 2nd in list of Best STEM magazines of 2024
- * Multiple certifications- AWS Academy Certification, ML Specialization, Python Specialization