SHREYANSH BACHCHU

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Summary

Machine Learning enthusiast with a strong foundation in Data Structures and Algorithms (DSA) and proficiency in C++ and Python. Passionate about developing intelligent systems and applying AI/ML techniques to solve real-world problems. Seeking opportunities to leverage my skills in building data-driven solutions, while gaining hands-on experience in software engineering and machine learning projects.

Projects

Pneumonia Detection System — Link

- Designed and deployed an ensemble deep learning model (ConvNeXt-Tiny + EfficientNetV2-S) in PyTorch, achieving 90% accuracy for pneumonia detection across bacterial, viral, and normal cases.
- Integrated explainable AI (Grad-CAM heatmaps) to provide transparent visualization of model decisions, enabling medical interpretability.
- Optimized model inference pipeline for real-time predictions (<5s latency) in production, ensuring scalability and reliability.

AI-Based Smart Resume Screening Tool — Github

- Built an AI-driven resume analysis tool with NLP-based skill matching and fraud detection for fake credentials.
- Developed sentiment analysis model using BERT to evaluate candidate cultural fit, automating feedback for 95% of rejected applicants and freeing up 10 hours weekly for HR.
- Engineered a resume parsing system with spaCy's NER, accelerating candidate profile generation by 60% and reducing manual review time by 15 hours per week for recruiters.

AI Food Analyzer — Link

- Developed an end-to-end AI food image analysis web app (React + Vite frontend, Tailwind CSS) with an intuitive image-upload UI and real-time result display backed by a Flask REST API.
- Implemented a PyTorch inference pipeline (ViT, EfficientNetV2, ConvNeXt) for food classification and nutrition assessment.
- Containerized and productionized the service (Docker + Nginx) and automated deployments with PowerShell scripts for Azure (ACI / Web App), ensuring reproducible, scalable model serving and easy CI/CD integration.

Skills

Languages: C++, Python, SQL, CSS, HTML

Technologies/Tools: Linux, GitHub, Git, MongoDB, Docker, Azure

Frameworks/Libraries: TensorFlow, Flask, spaCy, PyTorch, scikit-learn

Certifications

- **Create Machine Learning Models –** Microsoft
- **AI Skills Challenge -** Microsoft
- **Introduction to Generative AI –** Google
- **Data Science Master Virtual Internship –** AICTE

Education

Anurag University, BTech in Artificial Intelligence Science — Oct 2022 – Present
- CGPA: 8.5/10

Kendriya Vidyalaya Picket, PCM with Computer Science — Apr 2020 – Apr 2022

Achievements

- **Secured 2nd Prize** at TechXcelerate, a national 24-hour hackathon by CodeBeat at Anurag University, competing against 750+ participants — Certificate
- Solved 400+ problems on LeetCode | GfG rank 36 | Code360 Topper (Mar and Oct 2024)