Suhruth Madarapu

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EDUCATION

BENNETT UNIVERSITY
BTech in Engineering Physics
August 2021 |Delhi - NCR

B.P.D.A.V. SCHOOL
May 2015| Hyderabad, India

SKILLS

Programming Languages:
C++ • Python • LaTeX
Databases:
SQLite • MongoDB
Libraries and tools:
Sci-kit Learn • TensorFlow • Pandas • Docker • Git • Matlab • pyCUDA • CUDA C++
Other:
Agile methodology • Adobe Analytics • Dynatrace • VS Code • Jupyter Lab • librosa

COURSEWORK

OOPs with C++
Computational thinking with Python
Computational Physics
Advanced statistical mechanics
Signals and systems
Computational modelling of materials
Mathematical Physics
Quantum Computation and informatics
Nanoscience and technology
Optical Quantum Mechanics

ACHIEVEMENTS AND CERTIFICATES

- Deep Learning with Keras and Tensorflow - Coursera IBM
- Machine learning with python - Coursera IBM
- 2020 - 3rd/100 Hult Prize Business Challenge, BU
- 2019 - 5th/124 Babson Innovation Challenge, BU
- 2018 - Outstanding grade for Six-Legged Mars Rover (IoT) project.

EXPERIENCE

WIPRO | Business Analyst - Technical
Mar 2025 - Oct 2025
Client Project: Digital Banking Platform for one of India's top private banks (Aprox. 1.5 Million daily active users).

- Deployed & monitored **Adobe Analytics + Dynatrace RUM** on Angular-based SPA (5M MAU) to track 100% user journeys & detect edge-case errors.
- Built 10+ dashboards (Adobe Workspace, Excel, Python) for funnels & drop-offs; implemented offer-decisioning logic based on segmentation.
- Built Python scripts for log analysis, improving visibility into user trends & error hotspots; supported release validation & SLA compliance.

THINKAPPS | Business Analyst - Technical
May 2024 – Mar 2025

- Managed **production deployments** of Angular SPA modules via Git workflows & Docker, handling env-specific configs in a regulated banking setup.
- Used Dynatrace dashboards & alerts to monitor API latency, error rates & infra health.
- **Created Python scripts** to clean and analyze user metrics from analytics logs, improving visibility into **user behavior trends and error hotspots**.

PROJECTS

REAL-TIME AUDIO DEEPFAKE DETECTION PLATFORM

- Built an AI system to detect synthetic voices using spectrogram analysis + CNN–Transformer model, achieving 92 %+ accuracy (ROC-AUC) across multiple languages and codecs(mp3, wav).
- Designed a mel-spectrogram CNN pipeline (128×256 input) for audio forensics, reducing inference latency to < 1 s per clip.
- Automated MP3/WAV preprocessing using ffmpeg + Librosa, enabling real-time classification via a public web interface.
- **Try it live:** huggingface.co/spaces/Suhruth007/DeepFakeAudioExp

GPU-ACCELERATED IMAGE COMPRESSION USING PARALLEL K-MEANS CLUSTERING (CUDA)

- Implemented parallel K-Means with CUDA, replacing CPU loops with 65K+ GPU threads.
- Achieved 12× speedup on a 1080p image (CPU: ≈ 18s & GPU: ≈ 1.5s for 10 iterations).
- Compressed images by ≈ 85 percent using only 16 representative colors with minimal quality loss.

RESUME-MATCHER AI

- Built an **NLP pipeline** (TF-IDF + cosine similarity + spaCy) to match resumes vs JDs with **<1s latency**.
- Processed **500+ resume–JD pairs**, achieving **90%+ accuracy** in alignment scoring.

WI-FI CONTROLLED SIX-LEGGED MARS ROVER (IOT)

- Built a **hexapod rover** (Arduino Mega + ESP8266) with **6-legged locomotion** and **<100ms latency**.
- Designed **12 custom joints + 6 servo motors**; tested for **500+ cycles**.