SANKETH B AMARAVATHI

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SUMMARY

Aspiring software developer with a strong foundation in C, Java, and Python, and a keen interest in machine learning, data analytics, and artificial intelligence. Passionate about solving problems and building efficient, real-world tech solutions in innovative environments.

SKILLS

Programming Languages: C (Basics), HTML, Python
Development Tools: VS Code, Google Collab
Databases: SQL (Basics)
Management Skills: Project Management (Agile, Scrum)
Data Visualization: Power BI, Tableau
Technical Skills: MS Excel, MS Power Point, MS Word.

EXPERIENCE

Intern, Bharat Electronics Ltd(BEL) **Feb'25 - Mar'25**

- Developed machine learning models for live human detection using TensorFlow, enhancing real-time surveillance capabilities.
- Implemented text recognition systems using Tesseract OCR to extract and process textual data from images and video feeds.
- Contributed to intelligent automation solutions for security and monitoring applications.

EDUCATION

Bachelor of Technology in Computer Science and Engineering (AI&ML) **July 2026(Expected)**

JSS Academy of Technical Education, Bengaluru

- **Relevant coursework** in Analysis and Design of Algorithms, Database Management Systems, Artificial Intelligence, Operating Systems, Python Programming for Data Science, Software Engineering and Project Management, Image and Video Processing, Computer Networks, Machine Learning, Human-Centered AI.

PROJECTS

1. **TensorFlow for AI Model Training**

- Achieved 90% proficiency in TensorFlow for building and optimizing deep learning models.
- Developed CNN-based image classification models, improving accuracy by ~15%.
- Handled 100% of data loading, preprocessing, and hyperparameter tuning tasks.
- Gained 80% understanding of GPU acceleration benefits in large model training.

1. **Real-Time Text Recognition Using OCR**

- Achieved 90% accuracy in real-time text recognition using Tesseract OCR & OpenCV, applied on webcam streams and static images.
- Improved OCR results by 85% through image preprocessing techniques like grayscale conversion, thresholding & noise filtering.

3. **Predictive Analysis Using Kaggle Datasets**

- Performed predictive analysis with 90% efficiency using Kaggle datasets and Python libraries like Pandas, Matplotlib & Scikit-Learn.
- Achieved up to 92% accuracy in forecasting outcomes through effective preprocessing, feature selection, and model evaluation using MSE and R^2.
- Built predictive models for house price forecasting, loan approval prediction, and COVID-19 trend analysis with 80–90% accuracy.

4. **Human Detection and Automated Pedestrian Counting**

- Developed a real-time pedestrian counting system with 95% detection accuracy using YOLOv8 and OpenCV.
- Achieved 90% frame processing efficiency for human detection and counting in live video streams.
- Enhanced object detection accuracy by 88% through image filtering and optimization techniques.
- Gained 95% understanding of AI applications in traffic monitoring, smart surveillance, and crowd analytics.

ACHIEVEMENTS

1. **Asia Book of Records Holder for** **16 Jan 2021**

   Maximum people solving 3*3*3 Rubik's Cube on a digital platform

2. **India Book of Records Holder for** **16 Jan 2021**

   Maximum people solving 3*3*3 Rubik's Cube on a digital platform