# Keerthi BS

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# Summary

Graduate AI and Data Science Engineer with hands-on experience in real-time Computer Vision, NLP, RAG pipelines, and cloud-based application deployment. Demonstrated expertise in applying Python, ML, and cloud technologies to solve complex problems.

#### Education

# Nitte Meenakshi Institute of Technology

B.E in Artificial Intelligence and Data Science - 9.0 CGPA

Dec 2021 - June 2025 Bengaluru, India

Bengaluru, India

# BASE Pre-University College

PCMB - 91%

June 2019 - May 2021

# Experience

LiquidMind Ai Feb 2025 - April 2025

ML Engineer Intern Bengaluru, India

• Engineered Automated RAG-based Q&A Chatbot system with OCR and Llama, achieving over 95% text extraction accuracy for business documents.

- Streamlined RAG pipeline with vector databases, boosting answer precision by 20%.
- Optimized prompting, reducing query latency by 15% and enabling semantic search.

Intel May 2024 - July 2024

Associate Engineer - Trainee

Bengaluru, India

- Engineered a real-time TeleICU patient monitoring system using YOLOv8 and OpenCV, reducing false positives through high-precision activity detection and enabling holistic assessment via facial cues, posture, and activity signals.
- Optimized video inference pipeline, achieving 15–25% faster anomaly detection latency, enhancing response times in critical care scenarios.

# **Projects**

#### Real-Time Road Hazard Detection and Alert System | Python, Visual Studio

• Diagnosed and deployed a real-time road hazard detection system using YOLOv8 and gTTS on NVIDIA Jetson Xavier NX, achieving sub-30ms latency for instant voice alerts, enhancing driver safety.

# Medicine Recommendation System | Python, Visual Studio

• Developed a personalized medicine recommendation system using TF-IDF and cosine similarity, processing 1,000+ records to achieve 20% improved accuracy in symptom-based suggestions.

#### Cloud-Based Applications Development | Cloud, Microsoft Azure

• Deployed scalable Azure web applications with App Services, Blob Storage, and CI/CD pipelines, integrating secure SQL databases and Virtual Networks for sub-second response times and 15% efficiency gains.

## Technical Skills

Languages: Python, SQL, Java Developer Tools: VS Code, GitHub

Technologies/Frameworks: Data Science, Azure, OpenCV, Pandas, TensorFlow, Hadoop, GCP, Agile Technologies, Analytics Machine Learning & AI: Deep Learning, Computer Vision, RAG, NLP, Scikit-learn, Matplotlib, Power BI, Tableau, ETL pipelines, LLM, ML algorithms

#### Certificates

- NLP Using Python | **Infosys SpringBoard**
- Introduction to Generative AI | Google Cloud Platform
- AWS Cloud Architecture | AWS Academy CompTIA Network+ Certification | Infosys SpringBoard

# **Publications**

- Enhancing Campus Safety Monitoring: A Machine Learning Approach Springer Nature's ebook "Advances in
- Pothole Detection for Safer Roads Using Machine Learning IEEE 3rd WCONF 2025

#### Extracurricular Activities

- Led BUG BASH 2024 Hackathon as CIS IEEE Society EXCOM member and contributed to SIH 2023 and Eureka 2022 Hackathons, developing innovative AI solutions.
- Collaborated on Azure-based AI security solutions at Microsoft's Ignite Ideathon 2024 and gained insights on containerization and AI ethics at AWS Workshop 2023 and Mindvalley AI Summit 2025.