HEERATH BHAT

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Professional Summary

Software Engineer — AI Engineer — Full Stack Developer
Computer Science undergraduate (2026) with expertise in AI/ML optimization, full-stack development, and system design. Proven track record of improving model accuracy by 27%, reducing latency by 18%, and building scalable applications for 2000+ users. Proficient in data structures, algorithms, OOP, and cloud deployment. Seeking SDE, ML Engineer, or Full Stack Developer roles.

Education

B.E. Computer Science, MVJ College of Engineering, Bengaluru   2022–2026
- CGPA: 8.0/10   Relevant: Machine Learning, Deep Learning, Cloud Computing, Data Structures & Algorithms

KC Gurukul Public School, Jammu   2021–2022
- Higher Secondary (PCM): CGPA 7.0/10

Professional Experience

Technical Support Intern — Singularium Technologies   Feb 2025–Jun 2025
- Architected and optimized Human-in-the-Loop (HITL) ROC model pipelines for conversational AI, improving intent-classification accuracy by **27%** and reducing model drift through continuous feedback cycles.
- Implemented optimization strategies including confidence-threshold tuning, error-segmentation analysis, quantization-aware pruning, and lightweight re-training—resulting in a **22%** reduction in response-level errors and **18%** lower inference latency.
- Analyzed **10,000+** user interactions to detect missing intents and redesign fallback logic, increasing conversational-flow completeness by **35%**.

Projects

Smart Airport Resource Allocation   Python · Genetic Algorithms · LSTM
- Developed an optimization system for gate assignment and baggage scheduling using LSTM demand forecasting and genetic algorithms.
- Reduced average passenger wait time by **35%** through predictive resource allocation strategies.
- Project was **selected for the Smart India Hackathon (SIH)** internal round for its innovation and real-world applicability.

AI-Based Adaptive User Interface   OpenCV · MediaPipe · User Analytics
- Built a real-time adaptive UI that changes layout and components based on user interactions; increased engagement by **42%**.

Swayam: Cultural Fest Website   Next.js · PostgreSQL · SupaBase
- Full-stack event portal for scheduling, registrations and Razorpay integration for 2000+ attendees; automated workflows reduced admin effort by **60%**.

Real-Time Object Detection System   Next.js · YOLOv10 · WebSockets
- Engineered browser-based multi-user object detection at 32 FPS with **89%** accuracy using optimized YOLOv10 inference pipelines.

Technical Skills

- **Languages:** Python, Java, Kotlin, JavaScript, C++, SQL
- **AI/ML:** TensorFlow, YOLO (v10), HITL Systems, Model Optimization, Transfer Learning, Predictive Analytics
- **Web & Backend:** React.js, Next.js, Node.js, Express, REST APIs, OOP, Data Structures & Algorithms
- **Mobile:** Android (Kotlin), Flutter, Firebase
- **Data & Cloud:** Pandas, NumPy, PostgreSQL, AWS (EC2, S3), Docker, CI/CD, Linux
- **Tools:** Git/GitHub, System Design, Deployment Pipelines

Certifications

- Oracle Cloud Infrastructure 2025: Certified Generative AI Professional
- Oracle Cloud Infrastructure 2025: AI Foundations Associate
- PwC Launchpad ERP Program (2025) — IT fundamentals, SAP, RDBMS, Salesforce (6-month program)

Leadership & Activities

- **President** — Software Development Club — Technical Leadership & Project Delivery — managed 4 cross-functional tech teams and delivered campus-wide projects.
- **ML & Android Lead** — Google Developer Student Clubs — conducted workshops and mentored multiple AI/ML teams.