Amogh Prakash

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Summary

Aspiring Software Engineer with a solid foundation in object-oriented programming (C++, Python) and hands-on experience developing scalable systems, machine learning applications, and data-driven solutions. Demonstrates the ability to quickly grasp new technologies, work effectively in fast-paced, collaborative environments, and apply creative problem-solving to complex engineering challenges. Passionate about building impactful software in areas such as distributed computing, intelligent automation, and large-scale data processing, with a strong commitment to continuous learning and innovation.

Education

PES University Bangalore, KA
B.Tech in Computer Science and Engineering *Nov. 2022 – May 2026*

Technical Skills

Languages: C++ , Python, C, SQL
Frameworks: PyTorch, scikit-learn, Hadoop, Kafka, Spark, MySQL
Developer Tools: Git, Google Colab, Docker, VS Code
Certificates: Google Cybersecurity

Projects

Dynamically Voice-Modulated Story Generation System | *Python, FastAPI, React-Vite, Git* GitHub

- Developed modular microservices for emotion-aware storytelling with dynamic voice modulation and gender-based character identification.
- Engineered scalable audio processing pipelines using Librosa and FFmpeg for smooth, real-time transitions.
- Demonstrated teamwork and time management by structuring project milestones efficiently during the hackathon.

Music Recommendation System | *Python, Collaborative Filtering* GitHub

- Built a collaborative filtering engine to deliver personalized music suggestions based on user behavior.
- Processed and analyzed large-scale listening data to enhance recommendation accuracy and engagement.
- Optimized system performance and model adaptability using core machine learning principles.

Image Classification with Neural Networks | *Python, ANN* GitHub

- Designed and trained neural networks to classify images with high accuracy.
- Iterate model design using research-backed methods and feedback loops.

Multimodal Emotion Analysis Using Machine Learning | *Python* GitHub

- Implemented emotion classification using multimodal data from video and text inputs.
- Adapted quickly to new ML frameworks, applying evolving techniques to improve accuracy.
- Incorporated feedback loops to refine models, following best practices in iterative development.

Multi-Pollutant Air Quality Analysis and Health Risk Assessment | *Ongoing* GitHub

- Build an ML-driven system to analyze pollutant interactions and forecast air quality trends.
- Map urban pollution using geospatial visualization to assess health risks.
- Generate insights to guide policy decisions and reduce environmental impact.

MCP-TerminalAI: Conversational Automation Agent | *Python, LangChain, Playwright* GitHub

- Developed a terminal-based conversational AI integrating real-time automation and data retrieval.
- Engineered a memory-enabled agent with LangChain for orchestrating cross-service workflows.
- Enabled natural language control of tools like DuckDuckGo, Airbnb, and browser automation.