Amogh P

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SUMMARY

Passionate and driven Computer Science student with hands-on experience in building scalable, reliable, and user-centric software systems. Skilled in applying computer science fundamentals to real-world engineering challenges, including distributed systems, low-latency pipelines, and intelligent automation. Eager to collaborate on impactful projects, continuously learn new technologies, and contribute to Microsoft's mission to empower every person and organization on the planet to achieve more.

EDUCATION

PES University Nov 2022 – May 2026
B.Tech in Computer Science and Engineering *GPA: 8.02*

Siddaganga PU College Aug 2020 – May 2022
Higher Secondary Education *Percentage: 94%*

TECHNICAL SKILLS

Languages: Python, C++, C, Java, SQL, Bash.
Core CS: Data Structures, Algorithms, Object-Oriented Design, System Design, Operating Systems.
Frameworks and Tools: PyTorch, TensorFlow, scikit-learn, Apache Spark, Kafka, Hadoop, Git, Docker, FastAPI.
Databases: MySQL, PostgreSQL, SQLite, MongoDB.
Concepts: Distributed Computing, Information Retrieval, Machine Learning, Recommender Systems, Large-Scale System Design.
Dev and Collaboration: VS Code, Google Colab, GitHub, Jupyter, Notion, Microsoft Office.

PROJECTS

UrbanMind — The AI Brain of the City | *Kafka, PySpark, GeminiAI, SQL* GitHub
- Built a Kafka pipeline to scrape real-time civic reports for AI-driven alerting and emergency analysis.
- Used PySpark to filter and enrich streams, enabling disruption prediction and misinformation detection.
- Stored signals in SQL with credibility-based ranking for GeminiAI to summarize and prioritize alerts.

Real-Time Sentiment Streaming System | *Apache Kafka, PySpark, JavaScript* GitHub
- Engineered a real-time pipeline to process billions of emoji reactions with low latency and high availability.
- Built a scalable distributed pub-sub system for high-concurrency, enabling actionable feedback from streaming.
- Compared streaming and batch performance through visualization, improving system responsiveness.

Multimodal Emotion Analysis Using Machine Learning | *Python, scikit-learn* GitHub
- Applied classical supervised learning techniques to classify emotion using synchronized video and text inputs.
- Leveraged feature engineering and iterative model optimization to improve prediction accuracy.
- Focused on building testable, reproducible ML pipelines.

MCP-TerminalAI: Conversational Automation Agent | *Python, LangChain, Playwright, mcp-use* GitHub
- Developed a CLI-based agent capable of executing real-time automation workflows via natural language inputs.
- Integrated DuckDuckGo, Airbnb, and browser automation for dynamic content retrieval.
- Demonstrated rapid adoption of new tools and frameworks to create usable, tested solutions.

STRENGTHS

- Strong foundation in algorithms, data structures, and system design.
- Quick learner with a growth mindset—adopt new tools and frameworks rapidly.
- Proven ability to solve complex engineering problems in real-world settings.
- Collaborative and customer-focused, delivering robust, maintainable software.