

Prabhaav Pillai

Computer Science Graduate Student & Software Engineer

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Education

MS	Michigan State University , Computer Science - GPA: 4.00/4.00 - Currently pursuing M.S. Accelerated Computer Science Program (Completed 9 graduate credits during B.S. via MSU Shared Enrollment program)	East Lansing, MI Jan 2026 – Dec 2026
BS	Michigan State University , Computer Science - GPA: 3.89/4.00 Honors College Minor in Mathematics - Completed 4-year B.S. degree in 2.5 years	East Lansing, MI Aug 2023 – Dec 2025

Experience

Extern , AI Document Intelligence Extern (Pfizer Program) - Building an AI document intelligence system to automate data extraction, classification, and compliance risk detection across pharmaceutical records. - Developing Python pipelines utilizing Layout-Aware OCR and RAG to query and extract structured insights from complex vendor files. - Implementing document classification, dynamic file routing, and open-source LLM workflows integrated with a Gradio chatbot interface.	Remote July 2026 – present 2 months
United Wholesale Mortgage (UWM) , Software Engineering Capstone Developer - Developed full-stack IT Goals Dashboard using React and ASP.NET Core to visualize real-time KPIs for 2,000+ IT professionals. - Built EF Core migrations, backend metric aggregation logic, dynamic gauge widgets, and sparkline UI visuals exceeding SonarQube quality standards. - Collaborated with product owners to refine yearly/monthly metrics, improving operational transparency across IT teams.	Pontiac, MI Aug 2025 – Dec 2025 5 months
Microsoft TEALS Program , Volunteer CS Teaching Assistant - Instructed 50+ students across two AP Computer Science classrooms in computational thinking, JavaScript, and algorithmic problem-solving. - Coordinated with lead teachers to optimize lesson delivery, facilitate hands-on coding labs, and assist high school seniors with college readiness.	Detroit, MI Aug 2023 – June 2025 1 year 11 months

Projects

Automotive Edge AI System - StarPilot Developer (github.com/prabhaavp/vasm-op) Invited to core dev team for a safety-critical open-source vehicle platform - Appointed to Development Team with full repository write access to help steer project roadmap and backend architecture. - Authored and merged +1.7k lines of C++/Python into core production, deploying a real-time blind-spot monitoring system to thousands of active vehicles. - Trained custom YOLO26n ONNX models on 27+ hours of crowdsourced driving video using semi-automated CAN-bus radar logging for ground truth. - Engineered real-time edge performance on Snapdragon SoCs using zero-copy NV12 buffer slicing and CPU core isolation under 1.2x throttle overhead. - Drove widespread community adoption (27K+ views, 175+ upvotes) and maintained production lifecycle across post-release bug fixes and dataset updates.	July 2026 – present
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Certifications

- AWS Certified Cloud Practitioner (Score: 981/1000) - Amazon Web Services (July 2026)

Selected Honors

- First Place Award, Education Category - MSU University Undergraduate Research Forum (UURAF, April 2024)
- Researched academic impacts of Large Language Models (LLMs) on student performance using mixed quantitative and qualitative analysis.

Skills

Languages: Python, JavaScript, C#, C++, SQL

AI / Machine Learning: PyTorch, YOLOv8/26, Computer Vision (OpenCV), RAG, Layout OCR, ONNX Runtime

Frameworks & Tools: React, ASP.NET Core, Docker, REST APIs, Git, Gradio, PyQt6, Swagger UI

Cloud & Databases: AWS (Certified Cloud Practitioner), Azure SQL, Entity Framework Core