SYNA MALHAN

(602) 561-9842 | Email | LinkedIn | GitHub | Website

SUMMARY

Motivated and detail-oriented Computer Science student with a 4.0 GPA and diverse experience in AI, data science, full-stack development, and visualization. Proven ability to lead projects, collaborate across teams, and apply modern frameworks and tools to solve real-world problems. Strong background in retrieval-augmented generation (RAG), OCR, data analytics, and web development. Passionate about building human-centered AI systems and innovative technical solutions.

EDUCATION

Arizona State University, Tempe, AZ | **GPA:** 4.0 | **Expected Graduation:** 2027
Bachelor of Science in Computer Science | Minor in Data Science
Awards: Dean's List (4x), New American University Scholar, Grace Hopper Celebration Scholar

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SKILLS

Languages & Tools: Python, Swift, JavaScript, TypeScript, SQL, HTML, CSS, Bash, Git, Postman
Frameworks & Libraries: SwiftUI, WatchKit, React, AngularJS, Flask, FastAPI, Streamlit, Tailwind, Pandas, Transformers, YOLO, OpenCV
Technologies & Platforms: iOS Development, On-device Machine Learning, OCR, LLMs, RAG Systems, Graph Modeling, REST APIs, Docker, Firebase, Neo4j, Apple Developer Tools, Xcode, HuggingFace, Jupyter, VSCode, Figma
Concepts: NLP, Object Detection, OCR Pipelines, Model Fine-tuning, Data Visualization, CI/CD, Cloud Computing, Edge AI
Soft Skills: Cross-Functional Collaboration, Problem Solving, Mentorship, Communication, Agile/Scrum Execution

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PROFESSIONAL EXPERIENCE

GenAI Intern | *Enrest and Young* | Jun 2025 - Jun 2025
- Collaborated on building visualization-based AI systems for enterprise applications using Retrieval-Augmented Generation (RAG).
- Utilized Neo4j for graph-based data modeling and relationship mapping to improve spatial and contextual insights.
- Developed interactive dashboards and visual workflows to demonstrate AI outputs and knowledge graph structures.
- Participated in virtual sprint planning and team reviews, contributing to project documentation and technical presentations.

Cloud Front End Developer | *ASU AI Cloud Innovation Center* | Jun 2025 - Jun 2025
- Collaborated with cross-functional teams to design UI for public sector applications.
- Created wireframes and data visualizations to illustrate spatial usage and cloud workflows.
- Regularly reported progress via virtual meetings and managed tasks using cloud-based tools.

ML and Data Analytics Intern | *Ripik.AI* | Jun 2025 - Jun 2025
- Trained object detection models (YOLO), improving accuracy for industrial use cases.
- Developed OCR models and boosted form recognition performance by 25%.
- Produced dashboards and visual analytics for client reports.

Intern in Digitalization | *Jindal Steel and Power Ltd* | Jun 2025 - Jun 2025
- Developed internal data dashboards with AngularJS and Spring Boot.
- Enhanced visual clarity of operational layouts by redesigning space-related UI elements.
- Integrated performance metrics and reports into stakeholder presentations.

Software Engineering Fellow | *Headstarter AI* | Jun 2025 - Jun 2025
- Built data-rich, interactive AI apps using React, OpenAI APIs, and visualization libraries.
- Led peer reviews and presentation sessions via Zoom, enhancing team collaboration remotely.
- Led 4+ engineering fellows in full-stack development, with coaching from Amazon, Bloomberg, and Capital One engineers.

PROJECTS

NeuroTrack: Cognitive Health & Memory App | Swift, SwiftUI, CoreML, HealthKit
- Built a personalized brain-training app with adaptive difficulty powered by CoreML.
- Integrated HealthKit for logging cognitive wellness metrics and user session history.

PulseGuardian: Real-Time Stress Monitor (Watch + iOS) | Swift, WatchKit, HealthKit, SwiftUI
- Developed a heart rate variability-based stress detection app for Apple Watch.
- Enabled biometric alerts and guided breathing exercises through Watch-to-iPhone sync.

MoodSync: Voice Journal with Emotion Detection | Swift, CoreML, AVFoundation, Speech
- Created a voice powered journaling app with CoreML-based sentiment analysis.
- Enabled transcription, emotional trend visualization, and mood based tagging.

LensOCR: AI-Enhanced Document Scanner | Swift, Vision, CoreML, UIKit
- Engineered a high fidelity scanner with OCR and table extraction using Apple's Vision framework.
- Supported real time edge detection, image correction, and export to PDF.

OCR Training | Donut, Transformers, Python
- Fine tuned a domain specific OCR pipeline for industrial documents.
- Improved accuracy by 25% on noisy forms using model adaptation and custom field post-processing.

MindScape: Your Personalized Wellness Companion | React, FastAPI, HuggingFace Transformers, Ollama (Mistral), Python
- Built a full-stack AI-powered wellness journal for students using local LLMs.
- Used sentiment analysis and journaling data to suggest personalized, mindful actions.
- Integrated Mistral via Ollama for agentic recommendations based on daily entries.

Agentic RAG Hamilton Project | React, Neo4j, LangGraph, Ollama
- Built a character-aware agentic Retrieval-Augmented Generation system using Hamilton: The Musical as its knowledge base.
- Used Neo4j to model character relationships and LangGraph for orchestrating memory and retrieval across agents.
- Integrated Ollama for local reasoning with custom prompts per character.

AI Research Paper Summarizer | Python, Streamlit, HuggingFace (BART)
- Extracted full-text from PDFs and generated abstractive summaries.
- Enabled summary tuning via sidebar controls and preview/download capabilities.

TapFast (Apple Watch Game) | SwiftUI, WatchKit, Xcode 15+
- Built a wrist-based game that tracks tap count within a 5-second timer.
- Used haptics and minimal UI for fast-paced gameplay.

Wellness Journal (iOS App) | SwiftUI, Xcode
- Designed a minimal mood journal allowing users to log entries using emojis and text.
- Stored local data and displayed moods in colorful list views.

Slab Sizing | YOLO, OpenCV, Python
- Automated detection of slab dimensions using object detection and image processing.
- Calibrated YOLO model to recognize contours and measure length/width accurately.

Career Pilot | React, Python, Flask, Ollama
- Built a career tracking platform for managing job applications, goals, and visualizing progress through charts and timelines.
- Helped users organize resumes, interviews, and track job search data.
