

Amogh Hari Krishna

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-----EDUCATION-----

University of Maryland, Baltimore County (UMBC)

Bachelor of Science in Computer Science

(Expected Graduation: Fall 2026) | GPA: 3.4

Master of Science in Computer Science (BS/MS)

(Expected Graduation: Spring 2028)

Relevant Coursework:

- Data Structures & Algorithms
- Object-Oriented Programming
- Machine Learning & AI Fundamentals
- Computer Organization & Assembly Language
- Computer Networks
- Principles of Programming Language
- Principles of Operating Systems
- Computer Architecture

-----Technical Skills-----

Programming: Python, C++, Java, C, SQL, React, JavaScript, HTML/CSS, Assembly (learning)

Development Tools: Git/GitHub, VS Code, Jira, Linux, Microsoft Azure (learning), Kaggle, Fusion 360 (CAD), Revit

Concepts & Methodologies: Data Analytics, Machine Learning, Computer Vision, Software Development Lifecycle (SDLC), Cybersecurity, Standard Operating Procedure (SOP), Object-Oriented Design, Software Design Patterns, Systems Design, Software Architecture, CI/CD, Agile Methodology, Scrum

Databases: Microsoft SQL Server, Relational Databases, MySQL, Query Languages, PostgreSQL (learning)

AI & Generative AI: PyTorch, Generative AI, Large Language Models (LLMs), Natural Language Processing (NLP), Transfer Learning, Prompt Engineering, Model Deployment, Application Development

Cloud & Infrastructure: Azure (learning), RESTful APIs

-----PROJECTS-----

SortingOmega – Sorting Algorithm Reference Platform (*HTML, JavaScript, CSS, AWS Amplify, Route 53*)

<https://sortingomega.com>

- Developed and deployed a web platform for users to learn about the design and analysis of sorting algorithms
- Created structured explanations of multiple algorithms, including time/space complexity and use-case comparisons
- Implemented multi-language code templates (C++, Java, Python) to support practical learning and application
- Integrated Formsfree API to collect user feedback and guide future feature development
- Deployed the application using AWS Amplify with custom domain management via Route 53
- Designed a clean, responsive UI to enhance accessibility and user engagement across devices

Stock Analyzer (*Python, yFinance, Pandas, Streamlit, Matplotlib*)

<https://github.com/HariKrishnaAmogh/StockAnalyzer>

- Built an interactive data-driven application for real-time market analysis and investment performance visualization
- Integrated yFinance API to fetch and process live financial data, leveraging Pandas for time-series analytics
- Implemented performance metrics (RSI, volatility, Stoch RSI, moving averages) with Matplotlib-powered dynamic visualizations
- Designed a Streamlit-based interface for intuitive financial insights through customizable user input and charting tools

Eyes – Facial Stress Tracker (*Python, OpenCV, MediaPipe*)

<https://github.com/HariKrishnaAmogh/Eyes>

- Developed a real-time facial tracking and stress detection system using computer vision
- Implemented multi-feature analysis, including eye-openness, brow furrow, and jaw clenching
- Added smooth sliding-window averaging and a dynamic stress meter for smooth, intuitive visual feedback
- Designed modular, reusable architecture separating face detection, landmark extraction, tracking, and feature computation

AI-Powered Sign Language Recognition Model (*Python, OpenCV, Kaggle*)

- Collaborated in a 5-person team to develop a real-time ASL recognition system that converts hand gestures into letters
- Trained and optimized a machine learning model using a labeled Kaggle dataset
- Integrated OpenCV for video frame processing and real-time gesture tracking
- Strengthened the model's adaptability and accuracy through iterative data preprocessing

CERTIFICATIONS

- CS50x – Introduction to Computer Science (*Harvard University*)
- Design Patterns (*University of Alberta*)
- SQL Foundations (*Microsoft*)
- System Design Fundamentals (*Pearson*)
- Introduction to DevOps (*IBM*)
- Introduction to Generative AI with Snowflake (*Snowflake*)
- Cyber Security Consulting Simulation (*PwC – PricewaterhouseCoopers LLP*)
- Microsoft Azure Fundamentals (AZ-900) – In Progress
- Apple Search Ads (*Apple Inc.*)