



CHAMATH GUNAPALA

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PROFILE

I am an ambitious Computer Science and Engineering undergraduate with a strong passion for software engineering and machine learning. I focus on building skills in modern technologies and creating meaningful, impactful solutions. I enjoy taking on new challenges, staying focused under pressure, and exploring new ideas to contribute effectively to innovative projects. I am seeking opportunities as a Software Engineer or a Machine Learning Engineer, with equal enthusiasm and readiness for both roles.

EDUCATION

University of Moratuwa | 4th Year Undergraduate

May 2022 - current

B.Sc. Engineering (Hons) in Computer Science and Engineering

- CGPA: 3.51/4.00
- Specializing in Data Science and Engineering (DSE) Stream
- Minor in Mathematics

St. Anne's College, Kurunegala

Feb 2012 - Oct 2020

Advanced Level in Physical Science Stream

- GCE Advanced Level: Mathematics, Physics, Chemistry — 3As, Z-Score: 2.2024
- GCE Ordinary Level: 7As and 2Bs

PROJECTS

Mini Trading System | 🐙

2025

Technology Used: C++, Object-Oriented Design

Personal Project

- Developed a robust Exchange simulator in C++, featuring an order book and an automated matching engine.
- Implemented efficient algorithms for order matching, price-time priority execution, and real-time market statistics calculation.
- Designed a modular object-oriented architecture to parse and process large-scale historical trade data using STL containers.
- Developing a client-server architecture with multithreading to support real-time trade execution and concurrent order handling.

AgentBroker | 🐙

2025

Technology Used: FastAPI, Playwright, Pinecone, HTML/JS

Personal Project

- An autonomous AI agent for financial market analysis and automated trading insights, implementing MCP and RAG-based knowledge retrieval using Pinecone for context-aware insights.
- Built asynchronous data scraping pipelines to gather real-time market information.


LLM Benchmarking Tool

Ongoing

Technology Used: Python, Hugging Face, Accelerate

Final Year Research Project

- Researching the contextual understanding capabilities of LLMs and developing a graph-based evaluation pipeline for reasoning benchmarking under the supervision of Dr. Uthayasanker Thayasivam and Dr. Kamal Premaratne.


SEWA.LK | 

2025

Technology Used: FastAPI, React, PostgreSQL, SQLAlchemy, JWT, REST API, Redis, Firebase

Semester 05 Project

- Led the development SEWA.LK with contributions to both frontend and backend. Implemented secure authentication, OTP verification, and designed a scalable database architecture.

HR Management System | 

2023

Technology Used: ReactJS, MySQL, NodeJS, Express

Database Management Project

- Developed an HR Management System supporting four organizational user levels. Led front-end development and contributed to backend logic and database design.

EXPERIENCE

Coachello AI

Remote

AI/ML Software Engineer (Part-Time)

Jun 2025 – Present

- Developing and improving Coachello’s AI-driven backend services to deliver personalized coaching experiences.
- Working on model integration, optimization, and reliable AI-powered feature deployment.

Software Engineering Intern

Dec 2024 – May 2025

- Developed backend features, API integrations, database structures, and AI-powered functionalities using FastAPI.
- Improved UI/UX and implemented front-end components using React.js.
- Built custom automation bots using Playwright and Selenium to streamline internal workflows.

CERTIFICATIONS

Object Oriented Programming

2025

- Introduction to Object-Oriented Programming in C++
- C++ Programming: Classes and Data
- Object-Oriented Programming in C++: Functions
- Working with Objects in C++
- Use C++ to build a Crypto Trading Platform: Final System

Agile Software Development

2025

Model Context Protocol (MCP) Mastery

2025

Fundamentals of Deep Learning

2025

NVIDIA

Machine Learning Specialization

2023

- Supervised Machine Learning: Regression and Classification
- Unsupervised Learning, Recommenders, Reinforcement Learning
- Advanced Learning Algorithms

AWS Academy Graduate - AWS Academy Machine Learning Foundations

2024

SKILLS

Programming Languages: Python, C++, Java, TypeScript, JavaScript

Database: MySQL, MongoDB, PostgreSQL, ChromaDB

Technical Fields: Machine Learning, Context Engineering, Web Development, Human-Computer Interaction

Frameworks and Libraries: React, FastAPI, PyTorch, LangChain

Tools: Git, GitHub, Docker, AWS

LANGUAGES

English: Professional Proficiency

Sinhala: Native