

YUVARAJ P

Sholinganallur, Chennai, 600097.

☎ 830-045-8481 ✉ <mailto:yuvarajaug@gmail.com> [linkedin.com/in/yuvaraj-coder](https://www.linkedin.com/in/yuvaraj-coder) github.com/yuvarajaug-ctrl

EDUCATION

Govt Arts and Science College, Periyar University

Bachelor of Science in Computer Science

Jul. 2021 – May 2024

Dharmapuri, Tamil Nadu

UCE, Bit Campus, Anna University

Master of Computer Application

Aug. 2024 – May 2026

Trichy, Tamil Nadu

RELEVANT COURSEWORK

- Data Structures
- Algorithms Analysis
- Artificial Intelligence
- Systems Programming
- Software Methodology
- Database Management
- Internet Technology
- Computer Architecture
- Machine Learning
- Operating Systems

EXPERIENCE

Tech Mahindra Company

AI & ML Intern

January 2026 – March 2026

Chennai, Tamil Nadu

- Worked on real-world AI/ML applications, applying machine learning concepts to solve business problems and improve model performance while gaining hands-on experience in data preprocessing, model building, and evaluation techniques.
- Designed and implemented a RAG (Retrieval-Augmented Generation) system for intelligent document querying, using embeddings and vector search to generate accurate, context-aware responses from structured and unstructured data.
- Developed backend logic using Python and SQL for efficient data handling, querying, and integration of AI workflows, ensuring smooth data processing and improved pipeline performance.
- Strengthened programming skills in Java and collaborated using Git/GitHub in a team environment, following best coding practices, debugging techniques, and version control strategies for development.

College Team Projects

- Contributed to team-based projects involving web development, mobile app development, and automation, following SDLC practices to develop and deliver functional solutions while strengthening skills in Python, Java, and system design.

PROJECTS

AI Agent RAG Search | *Python, FAISS, RAG, LLM*

- Designed and developed an end-to-end AI Agent system integrating RAG and web search for intelligent, context-aware responses.
- Engineered a document retrieval pipeline using FAISS and sentence-transformers to enable fast and accurate semantic search over PDF data.
- Implemented a resilient web search agent with DuckDuckGo and fallback strategies to ensure consistent real-time information retrieval.
- Leveraged LLMs (Gemini) to generate grounded answers from both retrieved documents and live web data, emphasizing maintainability and scalability.

Sketch2Code GenAI IDE | *Python, Flask, OpenCV, PyTorch, PyTesseract (OCR)*

- Designed and developed an AI-powered system that transforms hand-drawn UI sketches into responsive html, css layouts and Java swing code.
- Engineered a computer vision pipeline for accurate UI component detection and text extraction from sketches.
- Leveraged Gemini LLM to improve code generation quality and handle complex layout interpretation.
- Developed a full-stack application using Flask and MySQL with an integrated IDE for real-time preview and interaction.

Weather App | *Python, Tkinter,*

- Developed a real-time weather dashboard using Python (Tkinter) with live data from OpenWeather API.
- Implemented multithreading for smooth UI performance and built an additional web-based dashboard for enhanced user experience.

Image Editing App | *Python, PyQt5, Pillow*

- Developed a desktop image editing application using Python (PyQt5) with features like rotate, mirror, filters, and format export.
- Optimized performance using Pillow with in-memory processing to ensure fast and efficient image manipulation.

TECHNICAL SKILLS

Languages: Python, Java, C++, SQL

AI/ML: Retrieval-Augmented Generation (RAG), FAISS, LLM Integration, Prompt Engineering, Computer Vision (OpenCV, OCR)

Web: HTML, CSS, Java Script, Flask

Tools: VS Code, Eclipse, PyCharm, Android Studio, Git, GitHub

Concepts: Object-Oriented Programming (OOP), REST APIs, Data Structures & Algorithms, Multithreading

CERTIFICATIONS

Udemy : Python | Microsoft Office

Tech Mahindra : AI/ML | Java | SQL Advance

Microsoft : AZ-900 | AI-900 | Power BI Report Design

Others : Quantum Computing (ATAL Program) | Titan Leap