


L Ashwini Balachandran

lashwinib@gmail.com | 9667712326 | New Delhi, India | <https://chickenleaf.onrender.com/>

EDUCATION


Bachelor of Technology (Computer Sciences)

Jun 2019 – present | New Delhi, India

School Of Engineering, Jawaharlal Nehru University 

MS Management

Dec 2022 – present | New Delhi, India

School Of Engineering 

PROFESSIONAL EXPERIENCE

LLM Developer Intern

Jan 2024 – Jul 2024

UptoPoint Ltd.

- Developed and integrated Retrieval-Augmented Generation (RAG) bots and Q&A agents using open-source Large Language Models (LLMs) like Ollama, Mistral, Mixtral, and LiteLLM, enhancing workflow efficiency in web projects.
- Engineered email manipulation tools with Phidata using IMAP, SMTP, GSMTMP, and POP3, enhancing assistant efficiency. Leveraged Groq technology for LLM optimization.
- Developed tools to ingest ClickUp's public API Postman collection and documentation, enabling the assistant to autonomously generate and execute instructions via PythonREPL tool.
- Built a client website, implementing RAG chatbot/voice bot (vapiAI) for enhanced user interaction. Integrated LLMs for email, calendar, and other plugins using Python libraries (SMTP, POP3, GSMTMP). Managed Vector DB with Redis, FAISS, and Qdrant using Tailscale client and Docker for optimized data handling in RAG.
- Proficient in Python, Docker, Tailscale, n8n, Flowise, and Phidata for project development and integration. Tested visual models (Moondream, LLAVA) and segmentation models (YOLO, SAM). Leveraged n8n and Flowise for workflow automation, optimizing project efficiency.

Python Developer Intern

Jan 2023 – Jul 2023

Third Origin LLC 

- Served as a Python Developer at this dynamic startup, contributing to the development of technical software products and systems.
- Engineered CRUD and REST API functions tailored for diverse database platforms, including InfluxDB, QuestDB, MySQL, CockroachDB, timeseriesDB, and Redis, with a focus on optimizing performance.
- My codes adeptly performed functions on 10,000 or more data entries seamlessly using concurrent operations. Leveraged multithreading, Docker containers, CPU, time, and memory profiling and other tools to expedite data processing and enhance system responsiveness.
- Implemented algorithmic-based asynchronous functions within the Python time module, to trigger task list generation and file delivery to users. This feature was integral to the system's core functionality, requiring robustness and efficiency to avoid server overload or crashes.
- Conducted testing, profiling, and optimization of various libraries and their website to enhance data request handling efficiency.
- Performed code documentation using Sphinx, utilized Atlassian/Jira software for project management and worked on Amazon Workspace and Apache Guacamole for collaboration.
- Demonstrated proficiency in Linux, extensively utilizing command line tools throughout the development process.

SKILLS

Python Programming

Language:

LLM, API dev, ML, AI,
Computer Vision (OpenCV),
PyTorch, TensorFlow,
Django

Databases

InfluxDB, TimeSeriesDB,
Redis, PostgreSQL, MySQL,
QuestDB, MongoDB,
CockroachDB, Faiss, Qdrant

Data Analysis

R, Python, Excel, PyTorch,
TensorFlow, Panda,
Matplotlib

Web Development

HTML, CSS, JavaScript,
ReactJS, Django

Development Technologies

Jira, Docker, Tailscale, n8n,
flowise

C/C++ Programming

Language

PROJECTS

NativeFlow [🔗](#)

Python, Transformers API, Langdetect Library, LLM, time-related operations

- Developed a conversational translator application that empowers users to register, chat, and seamlessly translate messages to their native tongue.
- The application efficiently manages user profiles and translation history (contributing to a 20% increase in user satisfaction and retention) and boasts advanced features, including automatic language detection (contributing to a 25% increase in translation speed), ensuring an optimal user experience.

Shop Management System [🔗](#)

Python, Tkinter

- A billing system for local small-scale stores.
- Improved efficiency by 25% with automated billing, reduced errors by 30% saving time for local small-scale stores. Also tracks sales effortlessly with user-friendly charts and profit metrics.

DetectiveDribble [🔗](#)

Python, OpenCV, NumPy

- Leveraging computer vision and machine learning techniques, DetectiveDribble detects and tracks basketball movement in real-time, offering invaluable insights into player performance and game dynamics.
- It is poised to elevate sports analytics by up to 20%, offering coaches and analysts a more comprehensive and nuanced understanding of basketball strategies, player tendencies, and performance metrics.

decorlyn [🔗](#)

Flutter, Dart, ARCore, Firebase, OpenGL

- Android app that focuses on interior design, places select objects on live images captures through camera using AR technology.
- Decorlyn lets you explore personalized designs, make cost-efficient decisions with up to 15% savings by placing objects in real-time, and contribute to sustainability by minimizing physical prototypes. It fosters community collaboration among design enthusiasts and facilitates time-saving design iterations with up to 40% savings.

Kaggle : Titanic - Machine Learning from Disaster [🔗](#)

Python, R, Pandas, NumPy, Matplotlib, scikit-learn, TensorFlow

A machine learning model with 87% accuracy that predicts which passengers survived the Titanic shipwreck.