

# Usama Puward

📍 Colombo, Sri Lanka | ✉ usamafuward2001@gmail.com | ☎ 076 626 0507 | 🌐 Portfolio Website

in usama-puward | 🌱 Usamafuward

## Profile

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AI/SE Engineer Intern and Software Developer with a Computer Science background, experience in Software Engineering and Artificial Intelligence. Dedicated to developing innovative, scalable solutions, tackling complex challenges, and driving real-world impact through collaboration and continuous learning.  
[Explore more of my works] [🔗](#).

## Education

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**BSc in Computer Science**, University of Colombo May 2022 – Aug 2025

- **Coursework:** Software Engineering, Data Structure and Algorithms, Machine Learning and Neural Computing, Middleware Architecture, SQA, DBMS

## Professional Experience

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**AI/SE Engineer Intern**, Kainovation Technologies – Colombo, Sri Lanka Nov 2024 – Present

- Designed and implemented the **Support AI Assistant**, a full-stack conversational AI with chat and voice support, using **Next.js** (frontend) and **FastAPI** (backend) integrated with **OpenAI Realtime API**, **Gemini**, and **vector stores**, delivering real-time, context-aware support for customers and employees
- Built an **Intelligent Document OCR Solution** with **FastHTML** (frontend) and **FastAPI** (backend), integrating **Gemini and OpenAI OCR models** to extract data from handwritten and printed documents with high accuracy
- Developed **Voice AI solutions** (AI Recruitment Assistant, AI Insurance Agent, AI Receptionist) with **Next.js** (frontend) and **FastAPI + Hume AI** (backend), enabling automated interviews, policy explanation, and real-time voice-enabled scheduling with calendar sync
- Created the **SAP Invoice Automation** frontend in **FastHTML**, streamlining invoice upload and formatting for SAP-ready outputs, improving accuracy and reducing manual data entry
- Developed the **InsurePulse landing website** using **React and Next.js**, delivering a responsive, SEO-optimized showcase for the platform's reporting and analytics features
- Independently developed the **official Kainovation Technologies website** in **Next.js**, achieving optimized performance, SEO visibility, and a fully responsive user experience

**Contract Software Developer**, Edus Lanka (PVT) LTD – Jaffna, Sri Lanka Nov 2024 – Jan 2025

- Contributed to the development of **Mediman – Doctor Patient Clinic Online Appointment System**, a **full-stack MERN project**
- Built the frontend using **React and Next.js**, delivering a responsive and user-friendly interface for appointment booking, patient management, and real-time doctor-patient communication
- Implemented **payment gateway integration** for secure online transactions, ensuring smooth and reliable payment flows
- Developed the **admin dashboard** for doctors and staff, enabling efficient management of appointments, patients, and system configurations

## Projects

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**Eats Robers – Food Ordering Web App** [github.com/Usamafuward](https://github.com/Usamafuward) [🔗](#)

- Designed and developed a full-stack web application for discovering meals, placing orders, and managing payments
- Implemented RESTful APIs and MongoDB integration for seamless user experience
- Tools Used: React, Node.js, Express.js, MongoDB, Mongoose

## RAG Pipeline for PDF Analysis (Chatbot)

[github.com/Usamafuward](https://github.com/Usamafuward) 

- Built a RAG pipeline to extract and analyze text, tables, and images from PDFs
- Enabled intelligent querying through a chatbot using multimodal embeddings and Google Generative AI
- Tools Used: LangChain, Google GEN AI, FAISS, Streamlit, Python

## Travel Point – Social Travel Platform

[github.com/Usamafuward](https://github.com/Usamafuward) 

- Built a social platform for travelers to share itineraries, experiences, and book accommodations
- Integrated FastAPI backend with React Native frontend for seamless web and mobile experience
- Implemented authentication, PostgreSQL database, and responsive UI using Tailwind CSS
- Tools Used: React, React Native, Node.js, FastAPI, PostgreSQL, Tailwind CSS

## Technologies

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**Languages:** Python, JavaScript, TypeScript, C++ , SQL

**AI/ML:** TensorFlow, OpenAI API, Gemini, Hume AI, Pandas, NumPy, OpenCV, LangChain, Vector Databases

**Frontend:** React, Next.js, React Native, FastHTML, HTML/CSS, Tailwind CSS

**Backend:** FastAPI, Node.js, Express, Django, MongoDB, PostgreSQL


**Cloud & DevOps:** Microsoft Azure, Git, Docker, RESTful APIs

## Certifications



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Meta React Specialization 

Meta

Machine Learning Specialization 


DeepLearning.AI & Stanford

Introduction to Front-End Development , Introduction to Mobile Development 

Meta

Introduction to TensorFlow , CNNs in TensorFlow 

DeepLearning.AI

Artificial Intelligence on Microsoft Azure 

Microsoft

Azure Fundamentals Training 

Styava

Developing Back-End Apps with Node.js and Express 

IBM

Mastering Multi-Agent Development with AutoGen 

Packt

DevOps Essentials and Version Control with Git 




Edureka

30 Days MasterClass in Artificial Intelligence 

NoviTech R&D

Programming with JavaScript , Version Control 

Meta




Introduction to Generative AI , Introduction to Large Language Models , Introduction to Responsible AI 

Google Cloud



## References

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**Mr. M.R. Sajeer Ahamed** – MSc in Computer Science, Nottingham Trent University  
Software Development Engineer, Amazon, London, UK

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- LinkedIn Profile 

**Mr. D.T. Bamunuarachchi** – MSc in Computer Science, University of Colombo  
Lecturer, University of Colombo School of Computing

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