Prashant Bhargava

New Delhi(110002), India

Experience

IEEE Computational Intelligence Society LPU

Software Developer

April 2024 - Dec 2024

• Built scalable full-stack and ML-integrated applications using **MERN**, **Go** and **Streamlit** under IEEE CIS, contributing to **patents** and **research publications** as an **IEEE certified member**.

Projects

Proto Query Search Engine

Jan 2025 - Feb 2025

Go., gRPC, MongoDB, REST API, Protobuf, CORS

- Engineered a high-performance question search engine using **Go**, **gRPC** and **MongoDB** with **vector-based searching** achieving a **99.99% uptime** and reducing query retrieval time by **60%** in the initial deployment phase.
- Designed a dual-layer API integrating gRPC stubs and an HTTP REST gateway, optimizing inter service communication and increasing request handling efficiency by 40% through concurrency.

MinAl Pdf Based Conversational Chatbot

Jun 2024 - Aug 2024

| Python, Llama 2, LangChain, MongoDB, FAISS

- Built an **Al-powered PDF chatbot** enabling **real-time answers** through **document-based querying** and NLP, achieving an **85% accuracy** in extracting relevant information.
- Developed with **Python, LangChain, FAISS** and **MongoDB**, integrating **Google Generative AI Embeddings** to enhance response **human-likeness by 70%**.
- Designed an interactive **Streamlit** web app with dark/light mode and **multi-PDF support** for a seamless experience.

NIRAAMAYAA - Healthcare Management System

Apr 2024 - Jun 2024

ReactJS, NodeJS, ExpressJS, MongoDB

- Developed a healthcare management system integrating RFID Health Cards, QR-based prescriptions and centralized medical records, improving patient-doctor interactions by 40%.
- Engineered using **ReactJS**, **NodeJS**, **ExpressJS** and **MongoDB**, implementing JWT authentication, OTP verification and **REST APIs** to ensure **99.9%** secure data handling.
- Integrated **Google Maps API**, email-based medicine reminders and an **AI-powered chatbot**, automating patient support and increasing accessibility by **60%**.

Achievements

Google Nibbler's Project

Sept 2024 - Jan 2025

(Al Platform Testing)

| AI, ML, Adversarial Testing, Image Processing

• Collaborated with **Google** to test and optimize the **Al-based** image generation platform, **Google Nibblers**, conducting **adversarial testing** to enhance model robustness and improve image generation quality.

Analysis and Optimization of the PCOS Patients Using Machine Learning Model

Aug 2024 - Dec 2024

(Book Chapter)

| ML, Python, Data Analysis

Co-authored a book chapter on ML in Next Generation Computing Techniques for Biomedical Applications.

Smart Food Waste Monitoring System

Nov 2022 - Feb 2023

(Patent Published)

| ReactJS, NodeJS, ExpressJS, MongoDB, AI, IOT

 Secured a published patent for designing an advanced Food Waste Monitoring System, leveraging RFID/QRtagged utensil tracking, color-based detection sensors and a central database, reducing food waste by 85%.

Technical Skills

Languages & Algorithms: C, C++, Python, Go, Java, Linux, DSA

DevOps & Tools: Git, Docker

Databases: MongoDB, SQL, PostgreSQL

Web Stack: React.js, Node.js, Express.js, gRPC, Tailwind CSS

Certifications

NPTEL Cloud Computing Certification

Jul 2024 - Oct 2024

Education

Lovely Professional University, Jalandhar

B.Tech in Computer Science and Engineering

Expected graduation date: Aug 2026

CGPA: 7.79/10