# Prashant Bhargava

New Delhi(110002), India

# Experience

## **IEEE Computational Intelligence Society LPU**

Software Developer

Dec 2023 - 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**

## Social Media Platform Backend

Aug 2025 - Sep 2025

Node.js, Express.js, PostgreSQL, Cloudinary, Node-cron, Docker

- Built a scalable RESTful API with **Node.js**, **Express**, **and PostgreSQL**, implementing **authentication**, **follow system**, **content feed**, **and search** for a social media platform.
- Integrated Cloudinary for media uploads and Node-cron for scheduled post publishing, streamlining automated content workflows.
- Secured and optimized the backend with JWT, Helmet, and Docker, and validated endpoints using Postman collections for robust API testing.

#### Mini-CRM - Customer Campaign Platform

Apr 2025 - May 2025

Node.js, Redis Streams, MongoDB, React.js, OAuth 2.0, Groq AI, Docker, Microservices, JWT

- Built a modular CRM system using microservices architecture and Redis Streams-powered pub-sub pipeline, enabling asynchronous, high-throughput processing and scalable segmentation workflows.
- Designed a **dynamic rule-based campaign engine** with real-time audience preview and delivery tracking, supported by **Dockerized services**.
- Integrated **Groq-based NLP** to convert natural language prompts into MongoDB queries, enabling Al-driven audience targeting and campaign personalization using intelligent query generation.

#### **MinAl Pdf Based Conversational Chatbot**

Jun 2024 – Aug 2024

Python, Llama 2, LangChain, MongoDB, FAISS

- Built an **Al-powered multi-PDF chatbot** delivering **real-time answers** through **document-based querying** and NLP, achieving **85% accuracy** in extracting relevant information.
- Developed with **Python**, **LangChain**, **FAISS**, and **MongoDB**, integrating **Google Generative AI Embeddings** to improve response **human-likeness by 70%**.

# **Achievements**

#### Google Nibbler's Project

Sep 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/QR-tagged utensil tracking, **color-based detection sensors** and a central database, reducing food waste by **85%**.

#### Technical Skills

Languages & Algorithms: C, C++, JavaScript, Linux, DSA

DevOps & Tools: Git, Docker, AWS, Jenkins, Kubernetes, LangChain, FAISS, Redis

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: 7.93/10