Aarsh Prajapati

Mississauga , Ontario | **ajprajapati2003@gmail.com** | 647-553-8223 | **LinkedIn**

Professional Summary

AI & Machine Learning Engineer with hands-on experience building, training, and deploying production-grade AI systems across computer vision, NLP, and Generative AI. Strong background in Python, PyTorch, TensorFlow, and cloud-native ML pipelines, with proven ability to deliver scalable, low-latency AI solutions. Experienced in full-stack development and MLOps, with a passion for applying AI to real-world business and safety problems.

Education

- Humber College – Ontario, Canada

  Post Graduate certificate in Artificial Intelligences & Machine Learning (2025)

- Canadore College – Ontario, Canada

  Post Graduate certificate in Mobile Application Development (2024)

Technical Skills

AI & Machine Learning

- Machine Learning, Deep Learning, Computer Vision, NLP
- Generative AI (LLMs, OpenAI APIs, prompt engineering)
- Time-series modeling, predictive analytics

Frameworks & Libraries

- PyTorch, TensorFlow, scikit-learn, OpenCV
- Pandas, NumPy, SciPy

Programming Languages

- Python, JavaScript, TypeScript, Java, C++, SQL

Backend & APIs

- FastAPI, Flask, Node.js, Express
- RESTful APIs, authentication, caching, error handling

Cloud, MLOps & DevOps

- Docker, Kubernetes, GitHub Actions
- AWS, Azure
- CI/CD pipelines, model deployment, workflow automation

Databases & Analytics

- PostgreSQL, MySQL, MongoDB, Redis
- Power BI, Tableau, Looker

Experience

AI / Machine Learning Engineer (Industry Capstone)
Gokaddal (Industry Partner – Humber College) | Jan 2025 – Apr 2025

- Developed a production-oriented computer vision system for driver safety monitoring.
- Trained deep learning models on large-scale annotated video datasets, achieving 90%+ accuracy.
- Implemented model optimization techniques (quantization, lightweight architectures) for edge deployment.
- Worked closely with engineers and mentors to meet industry-grade performance and reliability benchmarks.

Software Developer
Niche Tech Computer Solutions Pvt. Ltd. | Apr 2022 – Mar 2023

- Developed and maintained full-stack web applications using ASP.NET MVC5, JavaScript, and Bootstrap.
- Designed and deployed *Poll4U*, a real-time polling and analytics platform supporting high-volume user interactions.
- Built RESTful APIs and optimized database queries to improve performance and scalability.
- Collaborated in agile teams to deliver client-facing solutions with a focus on usability and maintainability.

Project Experience

Driver Drowsiness & Distraction Detection System
Humber College – Industry Collaboration with Gokkadal | 2025

- Built a real-time driver monitoring system using MobileNetV2 + LSTM for drowsiness detection and YOLOv5 for unsafe behavior recognition.
- Processed and trained on large-scale annotated video datasets, achieving 90%+ accuracy.
- Optimized inference pipelines using OpenCV and TensorFlow Lite, reducing latency by 25%.
- Collaborated with industry mentors to integrate AI models into telematics workflows under real-world constraints.

AI Resume & Cover Letter Builder (GenAI SaaS)
Personal Project

Live Demo: - https://resume-maker-fullstack.vercel.app/

- Designed and developed a full-stack Generative AI platform using React, Node.js, MongoDB, and OpenAI APIs.
- Implemented secure, scalable backend services with authentication, caching, and error handling.
- Automated NLP workflows using n8n for document parsing, prompt orchestration, and formatting.
- Architected cloud-ready, microservice-based systems designed for future monetization and scaling.

Skills: React, Node.js, Express, MongoDB, n8n, OpenAI, API design, full-stack development

Certifications & Achievements

- **Google Cloud Fundamentals: Core Infrastructure** – Coursera
- **Machine Learning Specialization (Andrew Ng)** – DeepLearning.AI
- **Generative AI with LLMs** – DeepLearning.AI and AWS
- **MLOps** – Duke University
- Presented at **Humber Capstone Expo 2025**, recognized among *Top Innovative AI Projects*