

KHUSHI PATEL

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Internship

EY Virtual Academy

June 2024-July 2024

Artificial Intelligence and Machine Learning Certification |

- Gained foundational knowledge in AI/ML concepts, including **supervised and unsupervised** learning.
- Learned to develop and **deploy** basic machine-learning models for **real-world applications**.
- Explored techniques for **fine-tuning large language models (LLMs)** for specific tasks.
- Worked on integrating AI/ML solutions into software applications with guidance.
- **Developed** problem-solving skills to identify and address common **technical issues** in AI/ML workflows.

Projects

AI-Powered Air Quality Prediction | Machine Learning, IoT, Flask

June 2024-July 2024

- Developed an **AI-based air quality prediction system** utilizing real-time **IoT sensor data** and machine learning techniques.
- Collected and processed environmental metrics (PM2.5, CO2, NOx, SO2) from **sensor networks** and open dataset
- Implemented **Random Forest, Support Vector Regression (SVR), and XGBoost** models to predict **Air Quality Index (AQI) with 85% accuracy**.
- Applied **feature engineering, data normalization, and hyperparameter tuning (GridSearchCV)** to improve prediction accuracy.
- Built an **interactive Flask web app** to display real-time AQI forecasts, pollution trends, and risk analysis.
- Deployed the model using **AWS EC2 and Flask API**, ensuring real-time data processing and monitoring.
- Github Repository Link: <https://github.com/its-patelkhushi/project>

Ethical AI for Food Safety

Nov 2024-Jan 2025

- Developed an **AI-powered food ingredient scanner** leveraging **OCR (Tesseract) and Natural Language Processing (NLP)**.
- Used **Convolutional Neural Networks (CNNs)** for text extraction and **Transformer-based NLP models (BERT)** to classify **harmful chemicals, additives, and allergens**.
- Integrated **web scraping with BeautifulSoup & Selenium** to fetch real-time ingredient safety data from **FDA, FSSAI, and consumer reports**.
- Designed an **interactive Flask-based web app** for real-time ingredient analysis, risk assessment, and sustainability recommendations.
- Deployed using **Google Cloud (GCP App Engine) & Fast API**, ensuring fast and scalable processing.
- Github Repository Link: <https://github.com/its-patelkhushi/project>

Certificates

Artificial Intelligence and Machine Learning-

June 2024-July 2024

EY Virtual Academy

Cloud Computing

Sep 2024-Jan 2024

NPTEL

Technical Skills

Languages: C++, Python, Java, CSS

AI/ML Frameworks & Tools: TensorFlow, Py-Torch, Scikit-learn, Natural Language Processing (NLTK).

Skills: Data Structures and Algorithms, Problem-Solving, Model Development and Deployment, Problem-solving, Communication

Soft skill: Problem-Solving, Curiosity & Willingness to Learn, Adaptability, Time Management, Critical Thinking

Education

Lovely Professional University Punjab	2022 – 2026
Computer Science and Engineering — CGPA: 7.2	<i>Jalandhar, Punjab</i>
BSS PUBLIC SCHOOL	2020– 2021
12th with Science — Percentage: 80.6%	<i>Raebareli, Uttar Pradesh</i>
BSS PUBLIC SCHOOL	2018– 2019
10th with Science — Percentage: 85.4	

