## **Pinakeshwar Vaishnav**

<u>LinkedIn</u> | <u>GitHub</u> | <u>Portfolio</u>

## **Professional Profile**

A highly motivated, results-oriented, and self-driven technology professional with comprehensive expertise spanning Full Stack Web Development and cutting-edge Artificial Intelligence (AI) and Machine Learning (ML). Passionate about architecting and developing innovative, end-to-end solutions that solve complex problems and deliver tangible value. Proven ability to rapidly master new technologies and methodologies, demonstrated through extensive project-based learning and successful completion of the rigorous Full Stack Open curriculum. Adept at leveraging a versatile skillset—encompassing frontend (React, Next.js), backend (Node.js), and advanced AI/ML techniques (Python, PyTorch, Scikit-learn, NLP, Generative AI concepts, LLM understanding)—to build robust, scalable, and intelligent applications. Committed to continuous learning and applying best practices to contribute significantly to impactful projects in either AI-focused or Full Stack engineering roles.

# **Core Competencies & Technical Skills**

#### 1. AI & Machine Learning Engineering:

- Languages & Libraries: Python (Proficient), Pandas, NumPy, Matplotlib, Seaborn
- ML/DL Frameworks: PyTorch, Scikit-learn
- Specializations:
  - Deep Learning: Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), Transformers
  - Natural Language Processing (NLP): Text Preprocessing, Sentiment Analysis, Topic Modeling, Named Entity Recognition (NER), NLTK, SpaCy
  - Generative AI: Understanding of Large Language Models (LLMs),
    Prompt Engineering principles, Core concepts of Retrieval-Augmented Generation (RAG)
- Model Lifecycle: Data Collection & Preprocessing, Feature Engineering, Model Training & Evaluation, Basic understanding of model deployment strategies.
- **Problem Solving:** Applying ML/DL to solve real-world problems in areas like computer vision, text analysis, and predictive modeling.

#### 2. Full Stack Web Development:

- **Frontend:** JavaScript (ES6+), TypeScript, React, Next.js, HTML5, CSS3, Tailwind CSS, Responsive Design
- Backend: Node.js, Express.js
- APIs: RESTful API Design & Development, GraphQL
- Databases:
  - NoSQL: MongoDB (Data Modeling, Mongoose)
  - o SQL: PostgreSQL
- Architecture: Microservices understanding, MVC/MVVM patterns

#### 3. Software Engineering & DevOps Fundamentals:

- Version Control: Git, GitHub (Workflows, Branching Strategies)
- Containerization: Docker (Image Creation, Container Management)
- **CI/CD:** Basic understanding and experience with tools like GitHub Actions
- Testing: Unit Testing, Integration Testing concepts
- Agile Methodologies: Familiarity with Agile/Scrum principles
- **Problem Solving & Analytical Skills:** Strong ability to analyze requirements, identify solutions, and debug complex issues.
- **Communication & Collaboration:** Effective in remote team environments (Zoom, Slack).

### **Education**

- Full Stack Open University of Helsinki
  - Description: Successfully completed a comprehensive and intensive program focused on modern Full Stack Development, covering JavaScript, React, Redux, Node.js, Express.js, MongoDB, GraphQL, REST APIs, TypeScript, CI/CD, and Containers. Emphasized practical application and project-based learning.
  - o Certificate: University of Helsinki