

# Raktim Patar

(+91) 60034 04209 · [raktimpatar101@gmail.com](mailto:raktimpatar101@gmail.com)

[Profile](#) [LinkedIn](#) [GitHub](#)

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Software Engineer with 4+ years of experience specializing in AI/ML. Combines a strong background in scalable backend systems with hands-on expertise in developing deep learning models for Computer Vision and NLP. Proficient in Python, PyTorch, and MLOps.

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## **SKILLS**

- **AI/ML Libraries:** PyTorch, TensorFlow, Keras, Scikit-learn, Transformers, OpenCV, LangChain, Pandas, NumPy
  - **Programming Languages:** Python, Golang, JavaScript
  - **Cloud & MLOps:** GCS, AWS, Vertex AI, Sagemaker, Docker, Kubernetes, Git, GitHub
  - **Frameworks & Tools:** Flask, Django, FastAPI, Streamlit, Node.js
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## **PROFESSIONAL EXPERIENCE**

### **Software Engineer**

**Dec 2022 to July 2024**

#### **Nanonets (Crewscale)**

- Engineered AI-driven document processing solutions, fine-tuning models for custom client data pipelines and improving data extraction accuracy.
- Built and maintained MLOps infrastructure using Docker and AWS, deploying internal applications that supported the ML lifecycle, including data handling and documentation.
- Implemented backend features in Golang and React, including table detection and customization, handling operations on detected tables, and migration of document-specific data.
- Assisted in on-prem deployments of client builds using Docker and Kubernetes.

### **Python Developer**

#### **Infrd.ai**

**May 2022 to Oct 2022**

- Enhanced Infrd's core Intelligent Document Processing (IDP) platform, engineering Python wrappers that improved text extraction model accuracy by a measurable 77%.
- Built a Flask application to process and transform JSON files into Excel and text formats. Deployed using Docker, capable of handling 21,600 collections on average.
- Conducted integration and unit testing with pytest.

### **Data Science Intern**

#### **Tyroo Technologies**

**May 2019 to May 2020**

Developed a Computer Vision API leveraging OpenCV and Deep Convolutional Neural Networks (CNNs) to automate image background removal and composition, increasing ad creation throughput by 4x.

### **Full-Stack Developer**

#### **Code Astra LLP**

**Oct 2021 to Feb 2022**

- Developed a grading REST API for Founder's Institute (FI.co) to evaluate founder performance based on customized tests.
- Restructured and modernized the FI.co website to improve user experience and broaden its demographic reach.

### **Associate Software Engineer**

#### **Harman International Pvt Ltd (Samsung)**

**Oct 2020 to Oct 2021**

- Created HAL layer automotive cluster applications and patches for weekly system updates.
  - Designed a centralized control environment for channel mapping and hardware configurations, reducing execution time by 80%.
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## **PROJECTS**

### • **FocalPoint AI: Image Segmentation Tool**

[Live App](#) | [Github Repo](#)

- Built a computer vision application for high-precision image segmentation using a pre-trained DeepLabv3-ResNet101 model.
- Implemented features for background removal, bokeh effect creation, and video frame anonymization.
- Tech Stack: PyTorch, TorchVision, OpenCV, Streamlit, NumPy.

- **CogniDoc: RAG-based Document Analysis Platform** [Live App](#) | [Github Repo](#)
    - Developed a document intelligence tool using a Retrieval-Augmented Generation (RAG) pipeline for parsing and summarizing invoices and technical documents.
    - Integrated Transformer and LLM models to enable complex querying and prompt-based document interaction.
    - Tech Stack: Transformers, LangChain, PyTorch, Streamlit, FAISS, Docker.
  - **AcousticSense: Real-Time Urban Sound Classifier** [Live App](#) | [Github Repo](#)
    - Engineered a deep learning model to classify 10 categories of urban sounds in real-time.
    - Extracted audio features (MFCCs) using Librosa and trained a custom Convolutional Neural Network (CNN) in PyTorch.
    - Tech Stack: PyTorch, Librosa, Scikit-learn, NumPy.
  - **Skin Cancer Classification via Transfer Learning** [Live App](#) | [Github Repo](#)
    - Developed and trained a classifier for detecting skin cancer by fine-tuning a MobileNetV2 model on the HAM10000 dataset.
    - Achieved an accuracy of 92% on the validation set, demonstrating effective application of transfer learning techniques
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## EDUCATION & CERTIFICATIONS

### Integrated Post Graduation (B. Tech + M. Tech)

Majors: Information Technology June 2015 - May 2020

Indian Institute of Information Technology Gwalior, Gwalior, Madhya Pradesh

### Scalar Data Science and Machine Learning

Aug2024 - Nov 2025

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