

Haroon Naseer

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Applied ML and Backend Engineer with experience in building ML systems and backend services. Experienced in Python, FastAPI, and cloud-integrated microservices. Strong foundation in ML algorithms, system design, and scalable architectures.

Experience

Software Intern

AndinoLabs (Andino Global Tech Private Limited) - Bengaluru, Karnataka - September 2025 - March 2026

Tech Stack: Python, FastAPI, Flask, PostgreSQL, SQLAlchemy, Celery, Redis, Amazon SQS, Amazon S3, Azure Foundry, Azure VM

- Built backend services using FastAPI following MVC architecture and SDLC practices.
- Improved response reliability by grounding LLM outputs using a BM25-based RAG retrieval service.
- Worked on data handling, query optimization, and ORM-based database interactions using PostgreSQL and SQLAlchemy.
- Designed microservices with asynchronous task processing using Celery, Redis and Amazon SQS.
- Migrated an existing Python application to use uv for dependency management.

Machine Learning Intern

InternzValley - February 2024 - April 2024

- Built ML models to improve heart disease classification accuracy from 80% to 85% with measurable gains in precision and recall.
- Performed exploratory data analysis on the Titanic dataset, identifying survival correlations across class, gender, and age.

Projects

PyTorchForge - IUST Awantipora

Python, FastAPI, Pydantic, Jinja2, Tauri, React, GitHub Actions

- Built a low-code platform for constructing deep learning pipelines.
- Implemented CI/CD with GitHub Actions to auto-build artifacts and publish versioned releases on feature updates.
- Assisted with UI and Sidecar Integration using Tauri and React.

Animal Classification - Python, TensorFlow, PyQt5, TFLite

- Achieved 97.8% accuracy using transfer learning with MobileNetV2.
- Deployed a desktop app using PyQt5.

Skills

Languages: Python, C++, Java | **Backend & Systems:** FastAPI, Microservices, Celery, SQLAlchemy, PostgreSQL, Amazon SQS, Amazon S3 | **ML & Data:** NumPy, Pandas, Matplotlib, Scikit-learn, TensorFlow, PyTorch | **Tools:** Git (branching, rebasing, hooks)

Achievements

Hackathon Winner - PriceWise - AndinoHack 2025 – Organized by AndinoLabs

- Built a unified product comparison tool using Python and Streamlit and Integrated OpenAI CLIP for image-based search.

Education

B.Tech in Computer Science and Engineering IUST Awantipora, J&K (2021 – 2025)

Certifications

- Google Data Analytics
- Machine Learning Specialization
- Deep Learning Specialization
- Explainable AI Specialization