OM NAGVEKAR

Kolhapur, Maharashtra, India

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EDUCATION

KIT's College of Engineering (Autonomous), Kolhapur *2021-2025 (expected)*
B.Tech in Computer Science (Artificial Intelligence and Machine Learning)
GPA: 8.11/10.0 Equivalent to 76.10%

Sou. S.M. Lohia Jr. College, Kolhapur *2019-2021*
12th (HSC, Maharashtra State Board)
Percentage: 88.33%

New HighSchool, Kolhapur *2019*
10th (SSC, Mahrashtra State Board)
Percentage: 82.80%

EXPERIENCE

ArthaVedh Consulting Pvt Ltd *June 2024- December 2024*
Machine Learning Intern
Assisted in developing machine learning models and generating synthetic data.

Intel Unnati Industrial Training Program 2024 *May 2024- August 2024*
Automated business contract validation by classifying input contracts and comparing them against standard documents to identify deviations.

Research Internship at Shivaji University (Nanoscience Department) *August 2024- Present*
Attempting to apply material science machine learning techniques. Right now, time series analysis, change point detection, and the RAG application for research paper analysis are being worked on.

SKILLS

Java, Python, Android Development, Android Studio, Android Design, Machine Learning, Deep Learning, Artificial Intelligence (AI), Natural Language Processing (NLP), Computer Vision, PyTorch, TensorFlow, Keras, Large Language Model (LLM), Retrieval-Augmented Generation (RAG), API Development, FastAPI, Git, GitHub, SQLite, Japanese Language

PERSONAL PROJECTS AND PUBLICATIONS

SpamSnap

· SpamSnap is an Android application that aims to help users manage their photo gallery by automatically detecting and deleting unwanted redundant photos.

AI Garbage Prediction API SIH 2024 Project

· Developed a FastAPI-based Garbage Prediction API for the Smart India Hackathon (SIH) 2024 Grand Finale. This API analyzes images and videos in real-time to predict garbage intensity, classify garbage types, and detect littering. It returns JSON data and images with bounding boxes, providing insights like garbage percentage, type, and frequency. Using ollama phi:3mini and Florence-2, the API also recommends green practices for monitoring dashboards.

Business Contract Validation

· Developed an automated contract validation tool that classifies contracts, compares them against standard documents, and identifies deviations. This tool uses machine learning, vector indexing, LlamaIndex, and a fine-tuned Phi-3 mini LLM with a RAG pipeline. It includes a Streamlit UI for PDF processing and deviation highlighting, and uses the Gradient API for speed.

GAN paper implementation

· Implemented and enhanced various GAN research paper codes (GAN, DCGAN, WGAN, pix2pix) using PyTorch. Focused on achieving stable training and improved image quality by experimenting with loss functions and hyperparameters.

Managing Spam Images on Android: An Approach Utilizing Machine Learning and NLP

· Om Ulhas Nagvekar, Sumeet Kurbetti, Parth Sarnobat, Uma Gurav, and Tanvi Patil. "Managing Spam Images on Android: An Approach Utilizing Machine Learning and NLP." Proceedings of Fifth International Conference on Computing, Communications, and Cyber-Security: IC4S'05, Volume 1, Springer, Lecture Notes in Networks and Systems.

· DOI: `https://doi.org/10.1007/978-981-97-2550-2_59`

CERTIFICATIONS AND AWARDS

LSAT (Lab Setup Automation Tool) PBL Day Winners

ML and AI Workshop - Technex,IIT Varanasi

Runner-up, Pioneer 2022 Runner-Up (Prakalp)

Alteryx Foundational Micro-Credential

Data Analytics Process Automation Virtual Internship (SEP - NOV 2023)

Japanese Language N5 level Certification NAT 5Q

Google AIML Virtual Internship (JAN – MAR 2024)

Amazon ML Challenge 2024 ranked 277 out of 2430 teams in top 12 percent.

SIH 2024 Grand Finalist

POSITIONS OF RESPONSIBILITY

SDC KITCoEK (Student Developers Club) *Oct 2023-Oct 2024*
Vice-President
Led diverse workshops on web, Android, AIML, Git, and GitHub as Vice-President of the Student Developers Club (SDC), Also serving as a speaker, fostering an engaging learning atmosphere and enhancing student proficiency in technology.

LANGUAGES

English : Professional working proficiency

Japanese : Elementary proficiency N5 level