

# OM NAGVEKAR

Kolhapur, Maharashtra, India

Google Scholar ◊ Github ◊ LinkedIn ◊ <https://omnagvekar.github.io/>

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## EDUCATION

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**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, Maharashtra State Board)

Percentage: 82.80%

## EXPERIENCE

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**ArthaVedh Consulting Pvt Ltd** *June 2024-Present*

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.

## PERSONAL PROJECTS AND PUBLICATIONS

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### SpamSnap

- SpamSnap is an Android application that aims to help users manage their photo gallery by automatically detecting and deleting unwanted redundant photos.
- Adding new features like language support to Marathi, Hindi, English, etc.

### AI Garbage Prediction API

- Designed and developed a FastAPI-based Garbage Prediction API showcased in the Smart India Hackathon (SIH) 2024 Grand Finale, offering real-time analysis of images and videos for garbage intensity, type classification, and littering detection. The API provides JSON responses and processed images with bounding boxes, generates actionable insights like garbage percentage, type, and frequency, and utilizes ollama phi:3mini and Florence-2 to recommend green practices for monitoring dashboards.

### Business Contract Validation

- business contract validation by classifying input contracts and comparing them against standard documents to identify deviations.
- Developed an automated contract validation tool using machine learning for classification, vector indexing and LlamaIndex for document comparison and clause validation, featuring an interactive Streamlit UI for PDF processing and deviation highlighting, with fast processing via Gradient API.
- Fine-tuned Phi-3 mini LLM and implemented a Retrieval-Augmented Generation (RAG) pipeline to enhance document analysis and validation accuracy.

## GAN paper implementation

- Implemented GAN Research paper codes like GAN, DCGAN, WGAN, pix-2-pix.
- Utilized PyTorch to recreate and enhance models, achieving stable training and improved image quality outputs.
- Experimented with loss functions and hyperparameters to optimize models and improve convergence and performance.

## 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](https://doi.org/10.1007/978-981-97-2550-2_59)

## CERTIFICATIONS AND AWARDS

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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

## SKILLS

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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

## POSITIONS OF RESPONSIBILITY

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### 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.

### TEAM MATRIX Student's Chapter Of ISRO IIRS

*Dec 2021-April 2023*

Technical Team Member

As a Technical Team Member at Team Matrix, I enhanced online visibility by creating engaging Instagram posts and designing informative PowerPoint presentations for events.

## LANGUAGES

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English : Professional working proficiency

Japanese : Elementary proficiency N5 level