



# Om Vinayak Koli

Roll No. 25-28-17  
Master of Technology (Quantum Computing)  
Defence Institute of Advanced Technology,  
DRDO

+91-9307666607  
mail.omkoli@gmail.com  
om.msqt25@diat.ac.in  
Github : omkoli3114  
LinkedIn : om-koli

## OBJECTIVE

Two-time NASA Space Apps Global Nominee, GATE DA Qualified, and Silver-Level Contributor at WorldQuant BRAIN. Strong command of Python, SQL, MATLAB. Skilled in Statistics and Machine Learning, with hands-on experience in AWS Bedrock and Apache Kafka.

## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
M.Tech. (QC)	Defence Institute of Advanced Technology, Pune	8.15	2025-Present
B.Tech. (AI and DS)	AISSMS Institute Of Information Technology	7.646	2020-2024
Intermediate	GGSPS and Junior College	74.3%	2020

## INTERNSHIPS

- **SAC - Indian Space Research Organization(ISRO)** *July 2023 - Dec 2023*  
*Research Intern (ML)*
  - **Tools & Technologies:** MATLAB, Python, Kalman Filter, Satellite Navigation, MLE, Fuzzy Logic, Mathematics .
  - Implemented the Moving Window Average technique in MATLAB, achieving a 15% reduction in pseudorange measurement errors.
  - Established a mathematical model for optimized Kalman filter, achieving an expected accuracy improvement of 15%-30%..

## PROJECTS

- **EY Techathon 6.0** *November 2025 - December 2025*  
*Agentic AI Personal Loan Sales Chatbot (NBFC Workflow Automation)* Github : omkoli3114
  - **Tools & Technologies:** FastAPI, Python, Gemini API, Agentic AI, Kafka, Flink, ReportLab, React
  - Engineered Kafka/Flink pipeline handling 10k+ daily events with sub-second latency.
  - Automated 85% of verification via Gemini agents, cutting approval time by 60
- **NASA Space Apps Challenge 2024 (Global Nominee)** *Oct. 2024 - Oct. 2024*  
*Seismic Event Detection on planets across solar systems* Github : omkoli3114
  - **Tools & Technologies:** Python, ObsPy, NumPy, Pandas, Matplotlib, Streamlit, Signal Processing (STA/LTA, FFT), Statistical Modeling.
  - Engineered a custom detection pipeline using ObsPy and STA/LTA triggering, applying high-pass filters and Least Squares fitting to precisely isolate extraterrestrial seismic events from background noise
  - Developed an interactive Streamlit dashboard for real-time waveform visualization and spectral analysis, streamlining the interpretation of planetary geological data.

## ACHIEVEMENT & PARTICIPATIONS

- **Regional Winner:** NASA Space Apps Challenge *Oct. 2023*
- **Mentor:** Desh Ke Mentor Program *2021 - 2022*
- **International Runner Up:** Silver at International Karate Championship *2017-2018*

## TECHNICAL SKILLS

- **Programming:** Python, HTML, CSS, JavaScript, SQL
- **Tools & OS:** MATLAB, AWS(Bedrock), Docker, Hugging Face, Git, Jupyter, LaTeX, Linux
- **Libraries:** Numpy, Pandas, Scikit-learn, TensorFlow, Matplotlib, MySQL
- **Web/DevOps:** ReactJS, FastAPI

## COURSES AND CERTIFICATIONS

Machine Learning, Data Structures & Algorithms, Data-base Management System, BioInformatics, Statistics, Data Streaming, Data Science, Quantum mechanics, Quantum Computing, Quantum Information Theory