



# ANKUR KOHLI

## SOFTWARE ENGINEER

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👤 ANKUR KOHLI - PORTFOLIO

*Aspiring Software Engineer with a strong foundation in Python, C/C++, Dart, Flutter, Java, Bash, Powershell, API driven client server development, & advanced technologies.*

### ABOUT ME

Proactive and results driven Software Engineer with expertise in **Flutter UI/UX** and ROS based backend client server systems. Expertise in designing and deploying scalable solutions with robust **API integration** and **real robot deployment**. With a strong foundation in **robotics** and **AI**, I thrive on problem solving and delivering intelligent, cutting edge solutions. Passionate about collaborative development, continuous improvement, and driving project success through clean, maintainable code, and modern software practices.

### PROFESSIONAL EXPERIENCE

#### • Software Engineer

April 2025 - October 2025

NTT DATA Italia

Italy

- Developed cross platform Flutter frontends with a UI/UX focus and realtime, multithreaded ROS2 backends, ensuring secure, low latency communication for intelligent systems.
- Led the development and deployment of an autonomous NAV2 SLAM pipeline using Dockerized ROS2, CI/CD, and tested on a real robot for hardware agnostic scalability.
- Enhanced system reliability through structured integration testing, validation, and debugging workflows using GitLab CI/CD, which reduced post deployment errors.
- Drove agile cross-team collaboration through technical documentation, architectural design, and specifications, turning research concepts into deployable, high performance systems.

#### • Thesis Project

June 2023 - February 2024

NTT DATA Italia

Italy

- Researched and developed realtime, multithreaded architectures to improve robotic system efficiency by 30%, optimizing inter process communication and latency.
- Built and deployed SLAM based mapping and navigation pipelines in Dockerized ROS2 with CI/CD workflows, enabling hardware independent scalability and reducing deployment time by 25%.
- Tested, validated, and debugged software using GitLab CI/CD, increasing system reliability and uptime by 20%.
- Authored comprehensive technical documentation, improving team productivity and maintainability across projects.

### PROFESSIONAL SKILLS

#### TECHNICAL SKILLS

##### Programming Languages:

Python, C/C++, Java, Dart, HTML5, CSS3,  
Bash, Powershell, JavaScript

##### Libraries:

OpenCV, PyTorch, TensorFlow, OpenAI

##### APIs:

JSON, WebSocket Services

##### Software & Tools:

Ubuntu/Linux, WSL, Docker, Git/GitLab,  
Flutter, CI/CD Pipelines, VS Code

#### SOFT SKILLS

##### Leadership & Planning:

Strategic Planner, Project Management,  
Mentoring

##### Innovation & Problem-Solving:

Creative Spirit, Concept Development

##### Teamwork & Collaboration:

Conflict Resolution, Reliable Organized

## CERTIFICATIONS

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|   |                |
|---|----------------|
| • Microsoft: Azure Fundamentals   | November 2025  |
| • Google Cloud Skills Boost: Responsible AI: Applying AI Principles with Google Cloud | January 2025   |
| • Google Cloud Skills Boost: Introduction to Responsible AI                           | January 2025   |
| • Google Cloud: Innovating with Google Cloud AI                                       | December 2024  |
| • Google Cloud Skills Boost: Introduction to Generative AI                            | October 2024   |
| • Amazon Web Services (AWS): Introduction to Machine Learning: Art of the Possible    | September 2024 |
| • Amazon Web Services (AWS): Introduction to Robotics on AWS                          | September 2024 |

## EDUCATION

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|  |                             |
|--|-----------------------------|
| • M.Sc Computer Engineering (Specialization: Robotics Engineering) | September 2021 - March 2024 |
| University of Genoa  | Italy                       |
| • B.Tech Mechatronics Engineering                                  | July 2016 - June 2020       |
| University of Petroleum & Energy Studies                           | India                       |

## PROJECTS

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- Artificial Intelligence Portfolio
- Frontend Portfolio
  - Responsive Website Design: This project hosts a restaurant website implemented using HTML, CSS, and some minor functions in JavaScript, demonstrating front-end development skills and basic web design principles. [QR]
  - Interactive Game using JavaScript: This project is a web based Rock-Paper-Scissors game that features dynamic gameplay, intuitive design, and a responsive layout, where complete JavaScript logic for user choices, game rules, and automated scoring has been implemented. [QR]
- Automated Warehouse Scenario Using PDDL 2.1: This project aims to create an AI planning warehouse optimization system that enhances order management, storage efficiency, and logistics through advanced planning, priority queues, plan graphs, and realtime analytics. [QR]
- Task and Motion Planning for Robotics in Coffee Shop Scenario: The goal of this project is to integrate task and motion planning for robotic navigation using PDDL based planners, state space graphs, BFS, heuristic search, and Euclidean distance computation. [QR]
- Machine Learning Portfolio
  - Cervical Cancer Detection using CNNs and VGG16 Module - TensorFlow: The objective is to deploy Deep learning based cervical cancer detection using VGG16 Convolutional Neural Network (CNNs) in TensorFlow with comprehensive preprocessing, training, and evaluation. [QR]
  - Convolutional Neural Networks (CNNs) to Process an Image - PyTorch: The goal of this experiment is to implement Convolutional Neural Networks (CNNs) in Jupyter/Python using PyTorch for efficient image processing and analysis with deep learning techniques. [QR]
- Robotics Portfolio
  - Software Architecture for Mobile Robot Control: This assignment involves developing a software architecture for controlling a ROS based mobile robot by applying graph based routing, Dijkstra's algorithm, and Python implemented controller/UI nodes. [QR]

## HOBBIES

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- Photography
- Hiking
- Chess
- Cricket
- Traveling
- Driving

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