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, JavaScript, API driven client server development, & advanced technologies.

ABOUT ME

Proactive Software Engineer with experience in frontend development and API-driven client server systems for an Italian MediaTech. I specialize in building scalable architectures with reliable integration and realtime execution. With a strong foundation in AI, native frontend, and backend systems, I excel at problem solving and delivering high performance, cutting edge solutions. I am passionate about collaborative development, continuous improvement, and advancing project success through maintainable code and software principles.

PROFESSIONAL EXPERIENCE

- **Software Engineer** *April 2025 - October 2025*

  NTT DATA Italia Italy

  - Developed and managed cross platform frontends with a UI/UX focus and realtime, multithreaded backends, enabling secure low latency communication and improving system responsiveness by 25%.
  - Led the development and deployment of an autonomous NAV2 SLAM pipeline using automation pipelines tested on a real robot, reducing deployment time by 30% and enabling scalable multiplatform deployment.
  - Enhanced system reliability through structured integration testing, validation, and debugging workflows using GitLab CI/CD, which reduced post deployment errors by 40% and improved runtime stability.
  - 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 environments, enabling hardware independent scalability and reducing deployment time by 25%.
  - Tested, validated, and debugged software using structured automation and integration workflows within GitLab, 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, Bootstrap, Bash, JavaScript

Libraries:

OpenCV, PyTorch, TensorFlow

APIs:

JSON, WebSocket Services, REST, RESTful

Software & Tools:

Ubuntu/Linux, 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

- **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

- **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

- **Frontend Portfolio**
  - **SkyScope Live Weather Dashboard with API Integration:** Built an interactive realtime weather application using JavaScript, Bootstrap, and WeatherAPI, implementing dynamic UI rendering, weather based animations, and API driven data workflows to enhance user experience and performance. [GitHub]
  - **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. [GitHub]
- **Artificial Intelligence Portfolio**
  - **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. [GitHub]
  - **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. [GitHub]
- **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. [GitHub]
  - **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. [GitHub]
- **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. [GitHub]

HOBBIES

• Photography • Hiking • Chess • Cricket • Traveling • Driving

REFEREE

Claudia Lunini
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