

# Ricardo Huaman

[youtube.com/@rotvieofficial](https://youtube.com/@rotvieofficial) | [rotvie@gmail.com](mailto:rotvie@gmail.com) | [linkedin.com/in/ricardo-jesus-huaman-kemper](https://linkedin.com/in/ricardo-jesus-huaman-kemper) | [github.com/rotvie](https://github.com/rotvie)

## EDUCATION

### Universidad Privada Antenor Orrego (UPAO)

*Bachelor in Electronic Engineering* **Merit: 1st place**

Trujillo, Peru

Jul. 2017 – Jul. 2022

## EXPERIENCE

### Artificial Intelligence Engineer

May 2024 – Present

*IP Noticias LATAM*

*Lima, Peru*

- Led business requirement collection and technically guided a team of 2 engineers in implementing solutions, including strategic KPI dashboards in Tableau.
- Deployed object detection models in production, reducing manual labeling time by 60% through automated pipelines.
- Designed and deployed a microservice-based architecture using Docker and Kubernetes for text classification and NER models, optimizing response times for 50+ custom models with MLOps principles.
- Developed a real-time facial recognition system for streaming video using gRPC, capable of identifying over 1000 individuals in digital media.
- Built and integrated LLM-based conversational agents (LangChain, Agno, MCP) connected to vector and SQL databases, enhancing user experience and insight extraction.
- Collaborated on technical proposal writing for innovation contests, managing documentation and relationships with external entities.

### Researcher

Jan. 2024 – Apr. 2024

*Cardiff University — Human-Centered Computing Lab*

*Cardiff, UK*

- Led the integration of language models (GPT, LLaMA, Mistral) with robotics to improve human-robot interaction in educational settings.
- Designed and implemented a scalable system to process multisensory inputs and optimize responses in humanoid robots.

### Researcher

May 2021 – Dec. 2023

*Universidad Privada Antenor Orrego — LABINM*

*Trujillo, Peru*

- Developed an autonomous navigation system for an agricultural robot integrating SLAM, planning, and control with ROS. (Funded by FONDECYT project 171-2020)
- Implemented deep learning-based computer vision pipelines achieving over 85% accuracy in crop evaluation. (Funded by PROCENCIA project 79170-2022)

### Machine Learning Intern

Feb. 2022 – Jun. 2022

*CorAll Development & Research S.A.C.*

*Trujillo, Peru*

- Optimized data collection and preprocessing for ML models, ensuring high-quality information.
- Trained deep learning algorithms, improving accuracy and efficiency in the retail sector.

## SKILLS

**Languages:** Python (Advanced), C++, Bash

**ML/AI Frameworks:** PyTorch, Scikit-learn, LangChain, LangGraph, Agno

**MLOps & DevOps:** MLflow, Docker, Kubernetes, Git, CI/CD, MinIO, Qdrant

**Data Processing:** Spark (basic), Pandas, NumPy

**Cloud:** Azure, AWS, GCP

**Other:** REST/gRPC APIs, FastAPI, Linux

**Languages:** Spanish (native), English (Advanced – TOEFL iBT 104/120), Japanese (Advanced – JLPT N2)

## SCIENTIFIC PUBLICATIONS

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| <b>Comparative Analysis of LiDAR Inertial Odometry Algorithms in Blueberry Crops</b><br>• <a href="https://doi.org/10.3390/engproc2025083009">https://doi.org/10.3390/engproc2025083009</a>                          | <i>Jan. 2025</i> |
| <b>Performance Evaluation of the ROS Navigation Stack using LeGO-LOAM</b><br>• <a href="https://doi.org/10.1007/978-3-031-66961-3_16">https://doi.org/10.1007/978-3-031-66961-3_16</a>                               | <i>Oct. 2023</i> |
| <b>Artificial Vision Strategy for Ripeness Assessment of Blueberries</b><br>• <a href="https://doi.org/10.1109/INTERCON59652.2023.10326058">https://doi.org/10.1109/INTERCON59652.2023.10326058</a>                  | <i>Nov. 2023</i> |
| <b>Deep Learning-based Segmentation and Classification for Artichoke Seedling Grading</b><br>• <a href="https://doi.org/10.1109/INTERCON59652.2023.10326060">https://doi.org/10.1109/INTERCON59652.2023.10326060</a> | <i>Nov. 2023</i> |
| <b>LQR Control for the Active Suspension System of a Four-Wheeled Agricultural Robot</b><br>• <a href="https://doi.org/10.1109/INTERCON59652.2023.10326049">https://doi.org/10.1109/INTERCON59652.2023.10326049</a>  | <i>Nov. 2023</i> |
| <b>Autonomous Navigation of a Four-Wheeled Robot in a Simulated Blueberry Farm</b><br>• <a href="https://doi.org/10.1109/ANDESCON56260.2022.9989865">https://doi.org/10.1109/ANDESCON56260.2022.9989865</a>          | <i>Nov. 2022</i> |