Ricardo Huaman

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EDUCATION

Universidad Privada Antenor Orrego (UPAO)　Trujillo, Peru
Bachelor in Electronic Engineering　**Merit:** *1st place*　*Jul. 2017 – Jul. 2022*

EXPERIENCE

Machine Learning Engineer　Oct 2025 – Present
Banco de Crédito del Perú (BCP)　*Lima, Peru*

- Develop and maintain end-to-end Machine Learning pipelines to support internal banking systems and production workloads.

Artificial Intelligence Engineer　May 2024 – Sep 2025
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.

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 PROCIENCIA 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

Evaluation of Detection and Tracking Algorithms for Automated Grape Cluster Counting *Jan. 2026*

- https://doi.org/10.1109/C366505.2025.11340275

Comparative Analysis of LiDAR Inertial Odometry Algorithms in Blueberry Crops *Jan. 2025*

- https://doi.org/10.3390/engproc2025083009

Performance Evaluation of the ROS Navigation Stack using LeGO-LOAM *Oct. 2023*

- https://doi.org/10.1007/978-3-031-66961-3_16

Artificial Vision Strategy for Ripeness Assessment of Blueberries *Nov. 2023*

- https://doi.org/10.1109/INTERCON59652.2023.10326058

Deep Learning-based Segmentation and Classification for Artichoke Seedling Grading *Nov. 2023*

- https://doi.org/10.1109/INTERCON59652.2023.10326060

LQR Control for the Active Suspension System of a Four-Wheeled Agricultural Robot *Nov. 2023*

- https://doi.org/10.1109/INTERCON59652.2023.10326049

Autonomous Navigation of a Four-Wheeled Robot in a Simulated Blueberry Farm *Nov. 2022*

- https://doi.org/10.1109/ANDESCON56260.2022.9989865