

Pablo Bolaños

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🏠 Zürich, Switzerland | 🇨🇭 Swiss Work Permit B | 🌐 www.pablobolanos.com

Computer Scientist & Mechanical Engineer focused on Software Development, Data Science and AI. Experienced in data analysis, aiming to develop intelligent systems that enhance engineering processes and decision-making.



WORK EXPERIENCE

Quality Control Analyst

📅 Jul. 2025 - current

IT'IS, 📍 Zürich

- Calibration and validation of SAR measurement products, ensuring accuracy and reliability.
- Contributed to the automation of robotic calibration procedures, developing software routines to improve efficiency, reduce manual intervention, and enhance system robustness.

Measurement Technician

📅 Apr. 2022 - Jun. 2025

SPEAG (Part-time), 📍 Zürich

- Implemented automated data-driven quality control to ensure compliance with industry standard.
- Enhanced product validation efficiency by developing automated analysis workflows within the DAK software.

Master's Thesis Internship

📅 Feb. 2024 - Aug. 2024

pd|z ETH, 📍 Zürich

- Developed a synthetic dataset pipeline using Blender and OpenCV to improve computer vision model predictions.
- Fully automated pipeline able to scale and generalize action recognition.

Internship

📅 May. 2023 - Nov. 2023

DDIS UZH, 📍 Zürich

- Designed a chatbot that evaluated bots outputs using SPARQL queries on knowledge graphs.
- Optimized chatbot feedback accuracy using NLP-based query refinement techniques.

Internship

📅 Aug. 2019 - Jan. 2020

Hochstrasser Glaus & Partner, 📍 Zürich

- Automated building environmental controls by optimizing HVAC systems with sensor-driven technology.
- Designed modular, reusable 3D models for HVAC systems, reducing design iteration time.

EDUCATION

M.Sc. in Computer Science

📅 Feb. 2021 - Jan. 2025

Universität Zürich, 📍 Switzerland

Major: **Data Science**, Minor: **Software Engineering**. GPA: **5.2/6**

Thesis: Action Recognition in Manual Assembly Processes using Computer Vision Models trained on Synthetic Data.

SPECS: Advanced Machine Learning, Network Science, Software Construction.

Mechanical Engineering Degree

📅 Aug. 2014 - May. 2019

Universidad San Francisco de Quito, 📍 Ecuador

Equivalent to a Master's degree in Engineering (5-year program). GPA: **3.1/4**

SPECS: Numerical Analysis, Project Management, Computational Mechanics.

TECHNICAL SKILLS

- 💻 **Programming Languages:** Python, Java, C++, C#, R, SQL.
- 📚 **Libraries:** Pandas, Scipy, Scikit, OpenCV, Pytorch, Tensorflow.
- 🔧 **Tools:** Git, Docker, Kubernetes, AWS, Azure, PowerBI.

LANGUAGE SKILLS

- Spanish:** Native.
- English:** Business Confident C1.
- German:** Basic proficiency A2.

PUBLICATIONS

Alan's Speakeasy – An Ecosystem for the Evaluation of Conversational Agents

📅 2025

- Rossetto, L., Sarasua, C., Oana, I., **Bolaños, P.**, et al. ACM Web Conference 2025. [\[link\]](#)

Evaluating Text-to-Image Generated Photorealistic Images of Human Anatomy

📅 2024

- Muhr, P., Pan, Y., **Bolaños, P.**, et. al. Cureus, Journal of Medical Science. [\[link\]](#)