

Pablo Bolaños

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in pablo-bolanos-sbo

🏠 Zürich, Switzerland

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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

📅 Apr. 2022 - Jan. 2025

SPEAG (Part-time), 🇨🇭 Switzerland

- 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, 🇨🇭 Switzerland

- 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, 🇨🇭 Switzerland

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

Design Engineer

📅 Feb. 2020 - Jun. 2020

CLIMEC, 🇪🇨 Ecuador

- Automation in building system designs, integrating smart controls for sustainability and efficiency.
- Reached high efficiency energy consumption and reuse of natural resources.

Internship

📅 Aug. 2019 - Jan. 2020

Hochstrasser Glaus & Partner, 🇨🇭 Switzerland

- 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 (WWW25).

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

📅 2024

- Muhr, P., Pan, Y., **Bolaños, P.**, et. al. Cureus, Journal of Medical Science.