# Samuel Cerezo

**ELECTRONIC ENGINEER · PHD STUDENT** 

Pisa, Italy

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Argentine, Spanish

"Engineering solutions that travel—across borders, systems, and challenges."

## **Education**

### Universidad de Zaragoza

Zaragoza, Spain

PhD in Systems Engineering and Computer Science

2021 - now

2014 - 2020

- Designed and implemented sensor fusion pipelines for full state estimation using GPS, IMU, and RGB-D data. Work included synthetic dataset generation in photorealistic industrial environments and ongoing implementation of real-time C++ algorithms for visual-inertial initialization.
- Supported by competitive research FPI Grant.
- PhD expected to be completed by Dec. 2025.

#### Universidad Nacional del Comahue

Neuquén, Argentina

• Got a scholarship from YPF which is given to promising students (€5.000/y for 5 years).

• GPA: 8.69 / 10.

Skills\_

**DevOps** Git, GitHub, Docker, Azure

**Programming** C++, Python, Matlab, LaTeX, HTML

**Languages** Spanish (native), English (fluent), Italian (conversational)

## Experience \_\_\_\_\_

**KUKA** Augsburg, Germany

PHD INTERN

Apr. 2024 - March 2025

Designed and implemented a complete data recording pipeline for a robotic cell. Tools: ROS2, Python, Docker container.

Provisioned a SLAM pipeline including Gaussian Splatting for environment representation along with robot joint readings.

#### "El Chiringo" restaurant

Zaragoza, Spain

WAITER

Feb. 2024 - Feb 2025

• Provided table service in busy hospitality settings during the weekends. Gained experience in customer interaction and order coordination.

Hydroner Services Neuguén, Argentina

SOFTWARE ENGINEER

Sept. 2020 - March 2021

 Designed and deployed IoT-based systems for water transfer in oil wells using Allen Bradley PLCs, achieving a 30% operational cost reduction for the company.

Matra SRL Neuquén, Argentina

SOFTWARE ENGINEER

Jan. 2020 - Jul 2020

• Designed and implemented an automated control system for on-site management of drilling fluid circuits, combining PLCs and HMIs.

# **Publications**

GNSS-inertial State Initialization by Distance Residuals

S. Cerezo, J. Civera. Submitted to RA-L, 2025

SLAM&Render: A Photorealistic Dataset for Visual SLAM in Industrial Environments

S. Cerezo, G. Meli, T. Berriel, K. Safronov, J. Civera. Submitted to RA-L, 2025

Camera Motion Estimation from RGB-D Inertial Scene Flow

S. Cerezo, J. Civera. CVPR 2024, Seattle, USA

Compressive Sensing Mapping System for Spatial Characterization of Photovoltaic Devices

S. Cerezo, M. Córdoba, F. Quintián. Argentine Conference on Electronics 2023, Buenos Aires, Argentina