# Óscar Criado de la Torre

Software Backend Engineer (Python, C/C++, Bash script)

## EDUCATION

**UNIVERSIDAD POLITÉCNICA DE MADRID**
MEng in Electronic Systems Engineering
2016 - 2017 | Madrid

**UNIVERSIDAD COMPLUTENSE DE MADRID**
Physics Degree
2013 - 2015 | Madrid

**UNIVERSIDAD CARLOS III DE MADRID**
Industrial Electronics and Automation Engineering Degree
2009 - 2014 | Madrid

## SKILLS

**TECH STACK**
Advanced:
Python• C/C++
Medium:
Shell • Matlab • SQL
Basic:
Rust • R

## CONTACT

Github: ocriado91
LinkedIn: ocriado91
Personal Page: ocriado.github.io
Mail: ocriado91@gmail.com

## EXPERIENCE

**GMV | European GNSS Service Centre | L3 Maintenance Engineer**
2022 – Current | Tres Cantos, Madrid

- Manage reported anomalies in the project, serving as the technical expert for addressing customer-reported issues.
- Collaborate with stakeholders at various levels to ensure timely resolution of anomalies.

**GMV | European GNSS Service Centre | Senior Software Engineering**
2021 – Current | Tres Cantos, Madrid

- Led into Galileo High-Accuracy Service integration, offering Real Time HAS corrections to +10k users over internet acording with NTRIP protocol.
- Development of OSNMA (Open Service - Navigation Message Authentication), a pioneering protocol designed to mitigate spoofing attacks and enhance the resilience of the Galileo GNSS system, positioning it as the most robust satellite-based positioning technology available.
- Development of new generation of Galileo algorithms, such as the COP (Cut-off Point) algorithm, which allows users to reduce the computational resources required for PPP (Precise Point Positioning) calculations.
- Implementation and monitoring key performance indicators (KPIs) defined by the client.

**GMV | Time and Geodetic Validation Facility | Intermediate Software Engineering**
2020 – 2021 | Tres Cantos, Madrid

- Led the implementation of User Ranging Accuracy (URA) algorithm, taking charge of developing and integrating it into the project workflow.
- Implementing optimization and monitoring techniques to ensure optimal performance of algorithms.

**GMV | Galileo Reference Centre| Junior Software Engineering**
2019 – 2020 | Tres Cantos, Madrid

- Development and monitoring of Key Performance Indicators (KPIs) to characterize the GNSS Galileo satellite constellation.

**EDIBON | Internship Software Engineering**
2015 – 2016 | Leganes, Madrid

- Development of SCADA systems for educational platforms targeting both educational institutions and industrial companies.

## RESEARCH

**OPTOELECTRONICS AND LASER TECHNOLOGY GROUP | UC3M | Undergraduate Research Assistant**
2012 – 2013 | Leganés, Madrid
Worked with Prof Jose Antonio García Souto develop a Bias-T system to detect partial discharges into electic transformers.

## PUBLICATIONS

**Prototyping of Galileo URA Determination with TGVF and Extended Galileo Performance Characterisation for SoL Applications**
2020
Galluzzo, G., Wallner, S., Pericacho, J.G, Criado, O., García, C., Sobrero, F.J., Brieden, P., Binder, K., Battista, G., Odriozola, M., Nuckelt, A., Joly, D., Canestri, E., Stallo, C., Sgammini, M., Martini, I., Mabilleau, M., Castrillo, N., Proceedings of the 33rd International Technical Meeting of the Satellite Division of The Institute of Navigation (ION GNSS+ 2020), , September 2020, pp. 1462-1475.