Jorge Peña Queralta

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Residence: Switzerland (B permit)

Citizenship: Spanish

Short Intro

Until 02.2025, I led a 5-FTE technical team as the CTO at DAAV. We worked on micromobility-as-a-service (autonomous robotic wheelchairs), putting together hardware, autonomy software and user applications. I was responsible for the complete SW stack and HW integration. Research to pre-production prototype in < 6 months.

Currently CTO of Skya (bootstrapped, $\sim$€1M public funding), working on ground-air *connectors* for autonomous aerial robots. Adjunct Professor in Robotics and Machine Learning at the University of Turku, Finland, and incoming Research Group Leader on Robot Learning at the Zürich University of Applied Sciences, Switzerland.

My past work has been as a senior robotics researcher and robotics software engineer, with expertise in 3D perception and navigation, but also practical experience with distributed systems, networking, electronics and overall system integration.

Links

Personal	`https://jopequ.github.io` **(WiP)**
GitHub	`https://github.com/jopequ`
LinkedIn	`https://linkedin.com/in/jopequ`
G Scholar	`https://scholar.google.com/citations?user=J1SHJeMAAAAJ`

Professional Experience

01/23 -	**CTO, Co-Founder**	Skya | Hybrid, Switzerland
07/24 -	**CTO** (-02.2025)**, Technical Advisor**	DAAV | Hybrid, Switzerland
07/23 - 06/24	**Postdoctoral Researcher**	ETH Zürich, Switzerland
08/22 - 06/23	**Postdoctoral Researcher & University Teacher**	University of Turku, Finland
08/18 - 07/22	**Project Researcher | Robotics & ML | Multi-robot systems**	University of Turku, Finland
11/18 - 12/20	**Robotics Software Engineer Consultant (hydraulic manipulator)**	Codator Oy, Finland
06/16 - 08/16	**Junior SW Developer & ML Researcher (Go for NLP, PHP for Web)**	Psycle Interactive, UK
09/15 - 02/16	**Enterprise Risk Services - IT Consultant Assistant**	Deloitte Spain, Barcelona, Spain
06/14 - 09/14	**Intern Software Developer & Algorithm Engineer (Java)**	BaseTIS, Barcelona, Spain

Technical Skills and Competences

Coding	Often using: ROS 2 / ROS with C++ and Python. Less often: Go, C, and JS. Earlier: PHP, Java
Robotics	ROS and ROS 2 - OpenCV, PCL, MAVROS, PX4 | Aerial autonomy stack, 3D Mapping, Blockchain + ROS
ML/DL	Pytorch, Reinforcement Learning with Isaac Sim, jetson-inference, TensorRT
Others	Linux networking, embedded systems, Docker. Past experience: VHDL; FPGAs: Xilinx Vitis and PYNQ
Web stack	Full stack with Django (Python) and, earlier, PHP (Laravel). Limited Go and NodeJS experience.

Degrees & Titles

05.2024	**Docent (Adjunct Professor) in Robotics and Machine Learning**	University of Turku, Finland
2019 - 2022	**PhD (Tech) in Robotics and Autonomous Systems**	University of Turku, Finland
2016 - 2018	**M. Eng. in Electronics Engineering**	Fudan University, Shanghai, China
2016 - 2018	**MSc (Tech) in Information and Communication Technology**	University of Turku, Finland
2011 - 2016	**BSc in Physics Engineering**	Universitat Politècnica de Catalunya - CFIS, Barcelona, Spain
2011 - 2016	**BSc in Mathematics**	Universitat Politècnica de Catalunya - CFIS, Barcelona, Spain

Language Skills

Spanish	**Mother tongue**	English	**Full professional proficiency**
Catalan	**Mother tongue**	Chinese	**A2 (Mandarin)**

Awards and Honors

2024	**SNSF Swiss Postdoctoral Fellowships (SPF)**
2024	**ICRA 2024 Assistive Systems Workshop	Best Paper Award**
2023	**ENRICH Challenge	Team Leader	UAV Mapping Winner**
2021	**Finnish Foundation for Technology Promotion	Research Grant**
2021	**TII Robotics Research for Tomorrow's Technology (R2T2) Seminar	Best Paper Award**
2021	**IEEE ICAS Conference	Best Student Paper Award (co-author)**
2020	**Nokia Foundation Scholarship	Research Grant**
2019	**Nokia Foundation Scholarship	Research Grant**
2019	**2nd Prize (Team) in JDD Global Digitalization Challenge (Localization for Autonomous Driving)**

Other Academic Merits

Activities in the academic community

- Junior Co-Chair of the TC on Multi-Robot Systems (TC MRS) of IEEE RAS (2023-).
- Associate Editor, Frontiers in the Internet of Things Journal, section Artificial Intelligence of Things (2023-).
- Short presentation at the 2022 ROSCon (ROS Developers Conference) in Kyotop, Japan.
- Invited speaker, Science and Technology Department of the Swiss government (DEFTECH) event on "GNSS-denied navigation and localization". (2021) (`https://tinyurl.com/deftech-swiss-2021`)
- Presentation on Blockchain+robotics, MIT Media Lab (2020) (`https://www.blockchainrobotics.org/`)
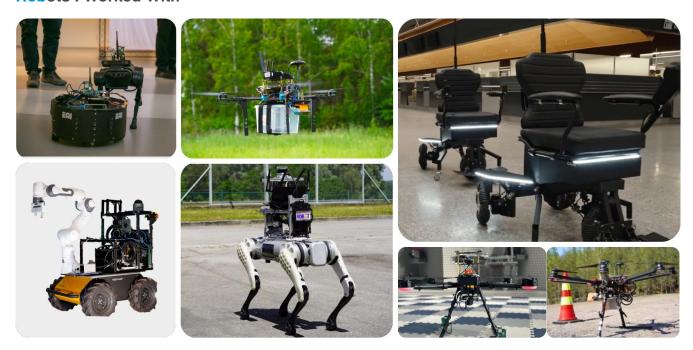
Expert evaluations

Evaluator and Rapporteur for 2025 EU Chips JU AI / Computing Continuum proposals.

Evaluator expert for the 2025 EIC Accelerator Full Proposal.

Evaluator of SNSF Research Project proposals, 2024.

Reviewer of project proposals for the Dutch Research Council (NWO), 2023.

Robots I Worked With

Non-comprehensive list of different robots and autonomous platforms I have put together and programmed to various degrees of autonomy over the past 8 years.