Fidel González Leiva

Robotics and Automation Engineer | Software Developer

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I usually go wrong, but every time I make better mistakes

Professional Summary

I am an empathetic and passionate software developer with a deep love for technology and a strong drive for teamwork. With excellent leadership skills and assertiveness, I thrive in collaborative environments, consistently delivering innovative solutions while fostering a positive and productive team culture.

Education

2014–2017	**College degree**, *UMA*, Málaga, *Electronic Robotic and Mechatronic Engineering*
2017–2018	**College degree**, *US*, Sevilla, *Electronic Robotic and Mechatronic Engineering*
2018–2019	**Master's degree**, *US*, Sevilla, *Electronic, Robotics and Automation Engineering*

Experience

July 2022 - May 2024 — **Software Developer**, *Bertrandt Group*
- Developed automotive-critical software using AUTOSAR and C++.
- Analyzed, implemented, and tracked low-level requirements.
- Extensively used git for the integration of highly dependent developments.
- Identified and resolved bugs through analysis of CAN, LIN, SOME/IP, and DLT traces.
- Worked under Agile methodologies (SCRUM)
- *Technologies*: C++, AUTOSAR, Python, Docker (under WSL), Bash and Wireshark.

June 2019 - July 2022 — **Robotics Engineer | Software Developer**, *FADA-CATEC*
- **MBZIRC 2020:** Designed computer vision algorithms for aerial target interception.
- **GAVIOTA:** Developed ground-based AI systems for aircraft detection.
- **DELOREAN:** Collected and analyzed data for autonomous UAV operations in urban environments.
- **METRICS:** Organized and evaluated an international championship on UAV navigation and defect detection.
- **Piloto5GAndalucia:** Developed a drone swarm for real-time security tasks.
- **ASSISTANCE:** Led a team developing multiple UAVs for disaster relief.
- *Technologies*: C++, Python, ROS, OpenCV, Gstreamer, CUDA, Docker, Bash, embedded Linux distributions, image labeling tools and LaTeX.

Languages

Spanish	Native	
English	Cambridge B2 First Certificate	*(last 3 years working mostly in English)*

Certifications and Courses

2021	Docker Mastery: With Kubernetes + Swarm from a Docker Captain	*Udemy*
2022	Nanodegree in C++	*Udacity*
2023	Introduction to the AUTOSAR Classic Platform	*dSpace*

Interests

Playing flamenco guitar, cyber security, lock-picking and freestyle FPV drones

Publications

[1] Manuel García, Rafael Caballero, Fidel González, Antidio Viguria, and Aníbal Ollero. Autonomous drone with ability to track and capture an aerial target. In *2020 International Conference on Unmanned Aircraft Systems (ICUAS)*, pages 32–40, 2020.

[2] Fidel González, Rafael Caballero, Francisco J. Pérez-Grau, and Antidio Viguria. Vision-based uav detection for air-to-air neutralization. In *2021 IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR)*, pages 236–241, 2021.

[3] Jorge Mariscal-Harana, Víctor Alarcón, Fidel González, Juan José Calvente, Francisco Javier Pérez-Grau, Antidio Viguria, and Aníbal Ollero. Audio-based aircraft detection system for safe rpas bvlos operations. *Electronics*, 9(12), 2020.

Timeline of personal interest in technologies