Nancy L. García Jiménez, ROBOTICS AND DIGITAL SYSTEMS ENGINEER

📞 +52 5534273823 ✉ nancylesgj@outlook.com 🌐 robotics-portafolio ⧉ github.com/nansnova

Professional Summary

If you're looking for a collaborative, detail-oriented engineer with strong problem-solving and time management skills, I'm the right fit! I've worked on diverse projects, tackling complex technical challenges by writing efficient, maintainable code and integrating software with hardware. In my previous roles, I applied my strongest skills—C, Linux networking, and interfacing communication protocols—to embedded systems, delivering high-performance solutions.

Education

B. Eng. in Robotics and Digital Systems.   08/2019 – 07/2023
Tecnológico de Monterrey, campus Estado de México   *C.G.P.A - 95.3*

Recent Certificates and Projects

JavaScript para Principiantes by WoMakers-Microsoft (02/2025)
Python + IA by Microsoft Reactor (03/2025)
Qt 6 Core Beginners and Intermediate with C++ by Bryan Cairns (03/2024)
More about me and my robotics projects: https://nancylesgj.wixsite.com/robotics-portafolio.

Technical Skills

Programming Languages: Python, C++, C, JavaScript
Developer Tools: ROS, Fusion360, MATLAB, Qt Creator, TestStand, CANalyzer
Technologies/Frameworks: Linux, GitHub, Arduino, FreeRTOS

Experience

Estrateg IA - www.estrateg-ia.com.mx   09/2024 – Present
HIL Engineer   *Naucalpan, State of Mexico, Mex.*
- Developed automation sequences in TestStand to run parallel tests, validating Visteon's software for Ford Motor Company across multiple vehicle models.
- Utilized specialized computers (Scalexio) and hardware (IPC, CanCase, local) to simulate sensors, motors, and other components, ensuring accurate pre-deployment testing of vehicle cluster functionalities.
- Collaborated with international validation teams to report issues, conduct functional testing, and implement hardware-in-the-loop (HIL) testing to validate hardware and software integration in real-time scenarios.

DTM TECNOLOGÍAS S.A. de C.V – www.gatsimed.com   02/2024 – 08/2024
Jr C++ Developer   *Lerma. Edo. Mex.*
- Responsible for software maintenance and development using Qt C++ and QML (JavaScript) to create and enhance the user interface of Gätsimed's volumetric fan.
- Integrated specific modules into biomedical applications, such as a capnograph sensor for data reading and sharing between the UI and the electronic control system.
- Identified and resolved bugs to ensure the smooth implementation and operation of software systems.

Robox – www.skysolutions.mx   09/2023 – 02/2024
Software Engineer Intern   *Mexico City, Mex.*
- Tested drone algorithms and dynamic behaviors in the Gazebo simulator using Ardupilot and ROS.
- Implemented various algorithms for actions like drone landing using computer vision, leveraging a Raspberry Pi and different cameras.
- Converted CAD models to URDF and developed realistic scenes in the Gazebo simulator for testing.

Leadership

TecnoLochicas   02/2024 – Present
Líder Educativo   *Fundación televisa*
- Participated in Tecnolochicas, a program by Fundación Televisa focused on inspiring and training young women aged 12 to 17 in programming and computer science fundamentals. The program aimed to broaden their professional aspirations, strengthen their confidence, and equip them with essential skills to enhance their future employability.
- Worked on creating courses and delivering them to educational institutions.