García Girón Maximiliano José Andrés

Mechatronics Engineer

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Github: https://github.com/MaximilianoGarcia716/Portfolio

EDUCATION BACKGROUND

2011-2024: Mechatronics Engineering/Universidad Nacional de Cuyo.

2010-2011: Civil Engineering/Universidad Nacional de Cuyo.

2004-2009: Pharmacy and laboratory technician/College 4-013 Doctor Bernardo Houssay.

WORK EXPERIENCE

2023-2024: Teaching assistant in the Object Oriented Programing assignature in Mechatronics Engineer career, Universidad Nacional de Cuyo.

2023: Supervised professional practices of Mechatronics Engineering, Faculty of Agricultural Sciences, environmental technology laboratory.

2019- present: STEM teacher for kids and teens in Cerebro Curioso.

2009: Supervised professional practice in clinical analysis laboratory/Health care center number 2 “San Antonio” Mendoza.

2008: Supervised professional practice in pharmacy/ Health care center number 2 “San Antonio” Mendoza.

SKILLS

- C, C++, C#, Unity, Python and Java Programming.
- Usage of Matlab and Simulink in design and modelling of mechatronics systems.
- Automatic systems design and modelling, including mechanical, electric and electronic components.
- Arduino, PIC and industrial PLC programing.
- Knowledge in artificial intelligence.
- Knowledge in Linux.

LANGUAJES

- Native spanish speaker.
- C2 english level. Certification: https://efset.org/cert/wq7khc

COMPLETED STUDENT PROYECTS

- Holonomic differential robot for exploration with Kalman filter based navigation using inertial sensors and Steppers with speed and acceleration control, data sending and reception through TCP/IP sockets and Wi-Fi gateway, object detection with Tensorflow Lite 2.0 based Artificial Intelligence, SCADA type interface based on Unity oriented to distributed control.
- Simulation and design of automaton control system for port crane with two independent actuators for PLC under the IEC 61131 standard utilizing structurated text, functional block diagrams and communication with Simulink through OPC UA.
- CO2 meassurement chamber for soil respiration with SCD41 sensors, Wemos Lolin32 Lite processor with multiplexation and data upload to Thingspeak.
- Trajectory generator for six DOF robot model ABB IRB140 for welding.
- Simulation and design of SCARA robot for Pick and Place application.
- RAM simulator using multithreading and SDL2 libraries for C++.