# Faouzi LAADJAL

Automation Engineer

## Personal details

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## Profile

Junior automation engineer with a robust foundation in my field, built through my valuable experiences during internships. Passionate about industrial automation and digitalization, I'm dedicated to staying at the forefront of technology. Adaptable, driven, and eager to excel, I'm ready to contribute to your organization's success.

## Employment

**Jul 2023 - Present**

**Automation Engineer**
**Inter- Entreprise, Rouïba, Algiers**

During my various assignments within different projects, I have accomplished the following tasks:

- Inspection of the control section of electrical cabinets according to electrical diagrams, including identification and resolution of wiring issues.
- Verification of inputs and outputs of various programmable logic controllers (PLCs), as well as conducting remote control tests from the PLC.
- Development and programming of manual and automatic modes for different pumping stations using the Sofrel S550 remote management unit.
- Contribution to the development of the SCADA system for different pumping stations using TOPKAPI.
- Installation, configuration, and parameterization of various measuring instruments, as well as Danfoss variable frequency drives.
- Resolution of instrumentation and automation issues for the provisional and final acceptance of projects.

As part of the Ain Zada Treatment Plant project in Bordj Bou Arreridj S7-414-5H Redundant, I also performed the following tasks:

- Diagnosis and resolution of communication and redundancy issues using Siemens Proneta and Step7 tools.
- Design and implementation of a program for a filter washing cabinet, controlling and supervising multiple pumps, boosters, compressors, and valves.
- Development of an HMI (Human-Machine Interface) with WinCC enabling effective visualization and control of equipment within the filter washing cabinet. Successful
- remote testing and control from the PLC and HMI interface.

**Mar 2023 - Jul 2023**

**Automation Engineer**

**Inter- Entreprise, Rouïba, Algiers.**

Project on the Ain Zada Bordj Bou-Arreridj water treatment plant:

- Verification of inputs and checking of output wiring using electrical diagrams, and rectification of connections if necessary.
- Development of an automatic control system for the filtration process of the water treatment plant.
- Design of a user interface (HMI) to allow operators to visualize, monitor, and control the filtration process.

**Mar 2023 - Jun 2023**

**MindSphere Solution Developer**

**Siemens SPA, Val d'Hydra, Algiers.**

- Development of a digital solution using the Mindsphere platform to enable real-time monitoring for optimization of operations & maximize the efficiency of Ain Zada Bordj Bou arreridj water treatment plant.
- Tasks include extracting real-time data from various sources using a PROFINET S7 connection to a Siemens MindConnect gateway.
- Developed a custom dashboard application using ReactJS and NodeJS to display real-time data.
- Analyzing the data to identify inefficiencies or weaknesses in the station and taking measures to optimize its performance and efficiency.

**Oct 2022 - Dec 2022**

**Automation Engineer**

**Faderco, Eucalyptus, Algiers.**

Internship at a production and manufacturing plant for hygiene products the objectiv was to :

- Understand the production process of women's sanitary napkins, adult diapers, cotton swabs, and wipes.
- Introduction to the CMMS software for managing and planning preventive maintenance, as well as calculating maintenance indicators.
- Develop an automatic solution and a user interface for the water treatment station and the fragrance preparation for the wipes station.

**Jun 2022 - Aug 2022**

**Automation Engineer**

**LM Electric, Eucalyptus, Algiers.**

I had the opportunity to learn various industrial electrical and automation skills over a period of two months:

- Creation of electrical diagrams for manual and automatic operating modes using EPLAN Electric.
- Programming of automatic operations and different modes, as well as safety operations using SCL/Ladder programming language.
- Development of HMIs/SCADA interfaces with WinCC.
- Simulation of a pumping station with two submerged pumps of 4KW.
- Simulation of Sidi Aich wastewater treatment plant (biological treatment part).
- Electrical wiring of a small test bench with different equipment (PLCs, VFDs, etc.).
- Various tests on a motor using a SINAMICS G120 variable frequency drive.

# Education

| Sep 2021 - Jun 2023 | **Master's in Industrial Automation and Processes** |
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| | **Houari Boumediene University of Science and Technology., Bab Ezzouar, Algiers.** |
| | Control and optimization of process performance via an IoT edge computing device in a cloud-based solution. |
| Sep 2018 - Jul 2021 | **Bachelor's degree in Automation** |
| | **Houari Boumediene University of Science and Technology., Bab Ezzouar, Algiers.** |
| | Virtual control of the operational parts of industrial systems using the software 'ITS PLC'. |

# Technical Skills

**Programming Siemens, Schneider PLC's & Sofrel RTU's**

**HMI & Scada design: WinCC, TOPKAPI**

**Electrical schematics: Design, wiring, EPLAN P8**

**Programming languages: Ladder, SCL, STL, JavaScript**

**Development of IIoT solutions**

**System integration: Troubleshooting, commissioning, instrumentation**

**Office tools: Word, Excel, PowerPoint**

# Certificates

| Dec 2023 | **Certified in Siemens SIMATIC STEP7 Maintenance Levels 1 and 2** |
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| Jun 2023 | **Training on prevention and intervention in the face of industrial risks by IFACT.** |

# Languages

| **Arabic** | Fluent |
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| **English** | Very good |
| **French** | Good |