



# Miguel Angel Aguirre Leon

Electronic Engineer MSc.

CIP N°264147

## **Professional Summary:**

Electronic Engineer graduated with a Master's degree in Electronic Engineering with 17 years of professional experience in mining and petrochemicals.

- Ability to design and implement field instrumentation solutions, advanced instrumentation, quality control and automation laboratories for industrial plants and processes with PLC, Motor Drivers, dedicated controllers and DCS/SCADA Supervision systems of various Brands: Rockwell, Siemens, Schneider, ABB, Modicom, industrial network protocols (Modbus, Profibus, Ethernet, Controlnet) and integration through OPC.
- Development of engineering, control strategies, procurement, assembly and commissioning of industrial instrumentation, automation and control projects.
- Professional in the design and implementation of cloud and integration solutions: development of backends (NodeJs, Python, Labview), development of interface REST APIs, design and implementation of SQL and NoSQL databases, Design and implementation of frontends (HTML, PHP, Javascript, Flask, Django, React), development of IoT systems, implementation of servers, containers (Docker), kubernetes, network configuration, Git, CD /CI with Jenkins.
- Programming of prediction and classification algorithms, Machine Learning, algorithms for Big Data processing, intonation of advanced control algorithms, predictive control and fuzzy logic.
- Professor in the course: Design with advanced DSP Microcontrollers in the Master in electronic engineering at the "Universidad Nacional Experimental Politecnica Antonio Jose de Sucre". (2013 and 2015)
- Advanced experience of dust extraction system design with ACGIH standards.
- Personnel Management for 14 years in direct iron reduction plant HBI-MIDREX
- English and Spanish communication in professional level.

## **CONTACT**

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ADDRESS:

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Bellavista. Callao. Peru

DATE OF BIRTH:

April 21, 1980

UNIVERSITY STUDIES:

National Experimental Polytechnic  
University 'Antonio José de Sucre'  
2007 – 2010 : Magister Scientiarum in  
Electronic Engineering.

National Experimental Polytechnic  
University 'Antonio José de Sucre'  
1997 – 2003: Electronic Engineering.

PUBLICACIONES:

AGUIRRE, Miguel; FRANCO, Zulay and PATETI,  
Antonio. Design and simulation of a neural  
network in VHDL and its application in filtering  
an electrocardiogram. uct [\[online\]](#). 2010,  
vol.14, n.57, pp. 261-268. ISSN 1316-4821.

AGUIRRE, Miguel. Adaptive control for starting  
steam generators using dynamic neural  
networks. uct [\[online\]](#). 2009, vol.13, n.51, pp.  
121-128. ISSN 1316-4821.

## Work Experience

### **LETMAN SAC, Lima, Peru.**

Sales Manager, January 2019 - Current

Design and management of projects in the area of automation and industrial instrumentation for the control and management of liquid fuels and LPG

Design and management of projects in the area of collection of dusts, fumes and mist. Donaldson Torit

Main clients Compañía Minera Antamina and Repsol Comercial, Repsol Exploration, Compañía Minera Volcan, Compañía Minera Chungar, Valero Energy Corporation, Fundicion Chilca SA, Mastercol SA

### **GRUPO SEIL EIRL, Lima, Peru.**

*Project Manager*, October 2018 - December 2018

Design and development of projects in the area of industrial automation. Main clients Compañía Minera Santa Luisa and Compañía Minera KOLPA.

### **SOCIEDAD INDUCONTROL S.A.C, Lima, Peru.**

*Project Manager*. Industrial Sales Area, May 2018 to October 2018

Provide solution in the Area of Control and Automation of Processes.

Responsibilities: Quotation of industrial automation, instrumentation and electricity projects, monitoring of projects, preparation of proposals and tenders:

Main Clients: QUIMPAC, SAN GABAN, C.H. EGASA, C.H. EGEMSA, C.H. CELEPSA, MINERA KOLPA, CIA MINERA BUENAVENTURA, BANCO DE CREDITO DEL PERU, GRUPO GLORIA.

### **CVG FERROMINERA ORINOCO, Ciudad Guayana, Venezuela.**

(Iron Mining Company) MIDREX Direct Reduction Plant. Company of extraction, transport, processing, peletización, direct reduction and briquetting of iron ore. [www.ferrominera.com](http://www.ferrominera.com)

***Automation and Instrumentation leader:*** February 2015 to April 2018

Development and management of maintenance plans in instrumentation, automation and electronics

Development of SCADAs in industrial platform LABVIEW.

Management of automation projects and basic and advanced instrumentation

Development of classic and advanced control algorithms

Corrective, preventive and fault detection maintenance

***Automation Engineer***, May 2004 to February 2015

Automation engineer for the implementation of control strategies (PLC and DCS) and integration of plant systems.

Basic and advanced instrumentation maintenance

Development of continuous control algorithms and permissive equipment protection. Permissive tests.

Preventive and corrective maintenance of material handling balances.

Preventive and corrective maintenance of analytical instrumentation (online analyzers and laboratory).

Preventive and corrective maintenance of instrumentation based on ionizing radiation

Development and implementation of projects.

**National Experimental Polytechnic University "Antonio José De Sucre"  
UNEXPO. Venezuela.**

Professor of the course DESIGN WITH MICROCONTROLLERS in the Master of electronic engineering.

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**Main Developed Projects:**

**Banco de Credito del Peru, Peru**

*Role: Head of Sales, 2019.*

- Project sales, management and implementation of telemetry system for diesel inventory management for emergency generators.

**Compañía Minera Santa Luisa, Peru**

*Role: Project Manager, 2018.*

- Migration from Scada intouch and Cimplicity to Rockwell Factorytalk view at Huallanca Hydroelectric Power Plant (2018)
- Automation of grinding, and conveyors system for polymetallic minning plant. SCADA Factory talk view and PLC controllogix (2018)

**Kolpa Mining Company, Peru**

*Role: Project Manager, 2018.*

- Automation with SCADA Factory talk view and PLC controllogix (2018) of the main process of extraction and sedimentation of polymetallic minning plant.

**CVG Ferrominera Orinoco, Ciudad Guayana, Venezuela**

*Roles: Project Leader, 2016 – 2018.*

- Migrating Honeywell Yamatake Dedicated Controllers to Siemens Moore Controller System in the Reformer Gas plants
  - Feasibility engineering study for migration from DCS ABB Mod 300 to DCS Yokogawa.
  - Development of SCADA in NI LABVIEW for monitoring water demineralization plant
  - Development of SCADA for wireless monitoring "RIO CARONI" water supply pumps in NI LABVIEW
  - Development of database integration software for controllers "DATAWAREHOUSE platform" for storage and integration of data in MySQL and NI LABVIEW
  - Development of SCADA development for main plant monitoring and remote monitoring via WEB for MIDREX HBI Reduction plant.
  - Development and migration of PLC controllers SLC500 to Rockwell controllogix of main compressors, main pumps and material handling in Midrex plant.
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**Recent Courses:**

**Advanced Industrial Filtration Course**

**2021. Donaldson Torit**

Engineering design for the implementation of Fume, mist and dust collection systems

**Introduction to Cloud Infrastructure Technologies. Edx**

**2021. Linux Foundation**

Credential ID 488789c19d6f4bdf8d61ddcce7e78274

**Introduction to Kubernetes. Edx 2021**

**Linux Foundation**

Credential ID 6aff8df16df14aa98b7ce2ba61fff121

**Developing Cloud Applications with Node.js and React. Edx 2021**

**IBM**

Credential ID bb2282f8e7964f44bf5e47f0077f0ce1

**Developing Cloud Native Applications. Edx 2021**

**IBM**

Credential ID 6bdb633572584a85bd67ba6885d783ca

**Introduction to Cloud Computing. Edx 2021**

**IBM**

Credential ID 04bcaca532b745ad83470912d7a00b94

**Machine Learning for Data Science and Analytics. Edx 2021  
Columbia University (Columbia X)**

Credential ID 69298b13780e42fba7997eb1ccc80bd7

**SQL applied in datascience. Edx 2021**

**IBM**

Credential ID e470e5ece8ee4d4193c466b2a9b11576

**Using Python for Research. Edx 2021**

**Harvard University (Harvard X)**

Credential ID 92b0aad5801d4c0b907bce45c32aaf87

**Cloud Application Development Foundations. Edx 2021**

**IBM**

Credential ID 14d16f330c744a8bb7569035124d66e0

**Basic English: conversational and networking. Edx 2021**

**Network of Universities of Anahuac**

Credential ID d6adec7c83c540f4b45421ae9984f962

**Introduction to Cloud Development with HTML, CSS, and  
JavaScript. Edx 2021**

**IBM**

Credential ID f472f8b76fc44fd7996eedf2978485ac

**Visualizing data with Python. Edx 2021**

**IBM**

Credential ID 4218ab57d7814105872580e02d27f75f