Besancon, France Bolivian
Grover Aruquipa Age 27
+591 65143534
grover.aruquipa.9@gmail.com

MECHATRONIC ENGINEER

https://www.linkedin.com/in/grover-aruquipa-996917126/

https://europa.eu/europass/eportfolio/api/eprofile/shared-profile/ee5b30cf-cc09-4490-9307-ee1e1125432c?view=html

EDUCATION

2022	***Master Science 1 Université de Franche-Comté. (2021-2023(September)). (Scholarship from the university)***
2022	***Waiting for the final stage MSc. In Mechatronics System (Bolivian Catholic University).***
2021	Diploma in Internet of Things (Six months)
2020	Diploma in Machine Learning (Six Months)
2020	Diploma in Robotics (Six Months)
2013-2019	Bachelor in Mechatronics Engineering *(certificate of score on degree project of **92/100** points) Bolivian Catholic University "San Pablo", La Paz Bolivia (2nd in the class)*
2018	Diploma in Automation and Process control Mechatronic 3rd Version (Six months) *Bolivian Catholic University "San Pablo", La Paz Bolivia*
2016	Diploma in instrumentation and advanced control of industrial processes. (Six months) *Universidad Privada Boliviana. La Paz Bolivia.*

WORK EXPERIENCE

2022 (Actually)	Research Intern FEMTO-ST(Parallel robots)
2021(2 months)	Artificial Vision Engineer in Sencon Srl.
2021(actually)	Research Engineer at Bolivian Catholic University
2021(3 months)	Online research work in data science with the KTH Royal Institute of Technology in Stockholm, Sweden (Part - time).
2020	**Research assistant at *ABB Power Grids Switzerland AG Research center. March 1 to September 1***
2019	Invited as a speaker at I.T.E.C. (https://itec-ucb.com/) to give the workshop Design of Mechatronics applications with NI MyRIO based on LabVIEW.
2017 (4 months)	Research assistant in the nanosatellite area of the Institute of Applied Electronics U.M.S.A. (http://iea.umsa.bo) in charge of the structural design of a CubeSat.
2018(2 months)	Internship at (http://www.smsic.com.bo/) Design assistant in the area of demonstrations, industrial and educational applications with National Instruments and LabVIEW La Paz, Bolivia.

KEY SKILLS

Languages:	Spanish	Native
	English	Advanced
	French	Basic
	German	Basic

Research fields: Artificial Vision, Data science, nonlinear time series prediction, recurrent neuronal networks, Cyber-physical systems, Integrated Manufacturing Systems, Parallel Robotic.

Computing: **Software:** Solidworks, ANSYS, Autodesk Inventor, PTC-CREO, CATIA, MATLAB, Ecodial, AutoCAD, Altium Designer, Proteus, Mbed Studio, Node-RED, PICC, Multisim, Latex, COMSOL Multiphysics, Ansys, FlexSim, Pro Model, TIA Portal, winCC, Cx-Programmer, Cx-Designer, Cx-Supervisor, RS Logix 5000,WPS Software, Softmachine pro, (PLC and controller software in general).
Programming and design languages: LabVIEW(expert), LabVIEW NXG, Python(expert), C++(expert), JAVA, VHDL, VIVADO.
Operating systems: Linux, Windows, RTOS (I am a designer with SoC's & MCU's), ROS.
Python Frameworks: Tensorflow, Pytorch, Plotly-Dash, Django, Tableau, PyQt, Flask.

Abilities: **handling** S.M.A.W. Welding, CNC machining with FANUC lathe, KUKA robot programming, installation of electrical networks, installation of industrial instrumentation networks, instrumentation in explosive areas, mechanic design, Mechatronics project, automation projects, Machine learning designer, Dashboard developer, industrial IoT Networks.

LEADERSHIP AND COMMUNITY ACTIVITIES

- **Active Volunteer in HOPE WORLDWIDE Helping low-income families in Bolivia and emotional support for adolescents.**
- I was president of the IEEE I.A.S. (Industrial Application Society) student chapter in the student branch of the *Bolivian Catholic University "San Pablo"*. (2019)
- Active member of the Mechatronics student scientific society 2018-2019 with the LIGHT DANCE project.

AWARDS AND PUBLICATIONS

1st Place Presentation of research paper (Jornadas argentinas de robotica 2019) (http://sgk-ar.com/jar2019/index.php/papers/)(This was a nationwide contest in Argentina in the field of robotics and automation of final research projects **1st Place**, ***where I got first place with my bachelor's thesis based on a parallel robot and a decentralized manufacturing system.***)

Published: Analysis of algorithmic trading with Q-learning in the forex market (ESCI2021-IEEE Xplore). (5-03-2021) DOI: 10.1109/ESCI50559.2021.9396948 LINK: https://ieeexplore.ieee.org/document/9396948

Published: Advances in the design and manufacture of Delta Type Parallel Robots from the study of materials (12th International Conference on Mechanical and intelligent Manufacturing Technologies 2021) - May 13-15, 2021. DOI: 10.1109/ICMIMT52186.2021.9476134

Published: Design and implementation of a delta robot based on FPGA for the automation of the collection of solid products (International Conference on Industrial Engineering 2021) - May 17-21, 2021. DOI: 10.1109/ICIEAM51226.2021.9446417

Published: An IoT architecture based on the control of Bio Inspired manufacturing system for the detection of anomalies with vibration sensors, (International Conference on Industry 4.0 and Smart manufacturing- ElServier)-November 19, 2021.

OTHER COURSES

FPGA's Continuing Education Course, *Bolivian Catholic University "San Pablo"* La Paz, 2017.
VHDL Continuous Training and Computer Arithmetic Course, *Bolivian Catholic University "San Pablo"* La Paz, 2017.
Automation and Industrial Control Course, *WEGTRON S.R.L.*, 2017.
Modules:

- Module 1: Introduction to plc's
- Module 2: Advanced plc + hmi's
- Module 3: Frequency converters
- Module 4: softplc with frequency converters
- Module 5: industrial networks
- Module 6: sizing of electric motors and power factor correction.

Course of "Automation and Industrial Control", *Ideas Automation S.R.L*., 2017
Modules:

- Module1: Industrial electrical engineering, panels, protections, drives and ecodial
- Module2: SoMachine Basic M221 Basic PLC's Programming
- Module3: Advanced PLC Programming SoMachine Full M241, M251.

Training in technical training on automation systems, functions, characteristics and advantages of PLC's and working methodology for automation projects based on LOGO, *FEPROM Solutions S.R.L*., 2016.
Course in "Industrial instrumentation for process control", *TRITEC BOLIVIA S.R.L*., 2016.
CAD mechanical design course at SolidWorks, *X-ideal S.R.L*., 2016.
CNC programming course with FANUC 21 controller for turning, *X-ideal S.R.L*., 2016.
Specialization course in abrasive discs, *HANSA Ltda*., 2016.
SMAW Electric Arc Welding Course, *Infocal* La Paz, 2016.
Practical theoretical course in "applied basic pneumatics", *Grupo Larcos Industrial Ltda.* 2015.
Matlab course applied to engineering, *Loyola La Paz University*, 2014.
Course in Microcontrollers, *Loyola La Paz University*, 2014.
Course Assembly, configuration and maintenance of computers, *Infocal* La Paz, 2007.
Please review EXTRA INTERNATIONAL COURSES ON LINKEDIN PROFILE

OTHER VIRTUAL SPECIALIZATIONS

- Ansys training: A easy Introduction with Applications (**Udemy**) https://www.udemy.com/certificate/UC-e618b540-f63e-4b77-95ff-3c5917b23c7a/
- PTC CREO Advance guide (**Udemy**) https://www.udemy.com/certificate/UC-e618b540-f63e-4b77-95ff-3c5917b23c7a/
- A hands- on Introduction to Engineering Simulation (**EDX**) https://courses.edx.org/certificates/29ff5b2763514256a3c3c725aaed4c19
- Digital Marketing Specialization (Coursera) (https://coursera.org/share/62e68e25e22ccad133a56dceb318e172)
- Mathematics for machine learning **Specialization** (Coursera) (https://coursera.org/share/37270c5b5184b9176700c6d345e0da9d)Deep Learning Specialization (Coursera) https://coursera.org/share/d07c6660fb9fbaf58199798bcf3dfd8e
- Developing Industrial Internet of Things **Specialization** (Coursera) https://www.coursera.org/account/accomplishments/specialization/certificate/S4N59GXMXRXM
- Digital Manufacturing & Design Technology **Specialization** (Coursera) https://coursera.org/share/8d24284ebc75c28b8974e59762ba2700
- Reinforcement Learning **Specialization** (Coursera) https://coursera.org/share/2aded4b88d5597ef7cf63313472b3b86-
- Machine learning for trading **Specialization** (Coursera) https://www.coursera.org/account/accomplishments/specialization/N83PA6EDD6CK
- TensorFlow in Practice **Specialization** (Coursera) https://www.coursera.org/account/accomplishments/specialization/WZNX87TV2LCA

OTHER LINKS

GITHUB: Grover Aruquipa (https://github.com/GroverAruquipa)

Grabcad: https://grabcad.com/grover.aruquipa-2/models
RESEARCHGATE: https://www.researchgate.net/profile/Grover-Aruquipa