Im Neuenheimer Feld 307, 69120 Heidelberg

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website

ariel.iporre.rivas@gmail.com

Ariel Iporre

SKILLS

Projects

</> aiporre.github.io ⬈

Programming languages

PYTHON	C++
JAVASCRIPT	CSS/HTML
SCALA	JAVA

Tools

MATLAB	INTELIJ
MAVEN	JENKINS
SPRING	TRAVIS-CI

Machine Learning

| TENSORFLOW | PANDAS |

Frameworks

NODE.JS	DJANGO
HIBERNATE	AJAX
JQUERY	APACHE SPARK

DevOps

DOCKER	LINUX
JENKINS	CIRCLE CI
AWS	KUBERNETES

LANGUAGES

Spanish
C2 Native

English
C1 with TOEFL 101/120

German
B1-B2 with Goethe Deutsche Zertifikat B1

EDUCATION

2017–2019
Heidelberg

M.Sc. Biomedical Engineering
RUPRECHT-KARLS-UNIVESITÄT-HEIDELBERG
Specialization in Computational Medical Physics
Focus: MACHINE LEARNING, MEDICAL IMAGING, OPTIMIZATION

2006–2014
La Paz, Bolivia

B.Eng. Electronic Engineering
UNIVERSIDAD MAYOR DE SAN ANDRÉS
Specialization in Control Systems
Focus: CONTROL THEORY, SIMULATION, OPTIMIZATION

EXPERIENCE

May.2018–present
Heidelberg

Software Developer Research Assistant
FUNCTIONAL NEUROANATOMY GROUP
INSTITUTE FOR ANATOMY AND CELL BIOLOGY
UNIVERSITÄT HEIDELBERG
Software development statistical analysis, computer vision and biological image analysis.

- Data analysis pipelines for micro-endoscopy calcium. Clustering behavior patterns
- Behavior video analysis. Developed an unsupervised learning algorithm for the extraction of behavior traits in behavioral videos: whisking and basal activities. Based on a Deep-Learning methods
- Developed scientific support systems for analysis and processing of microscopy images. Segmentation and noise removal

May.2018–Aug.2019
Mannheim

Software Developer Research Assistant
DATA ANALYSIS AND MODELING IN MEDICINE GROUP
INSTITUTE FOR INTELLIGENT SYSTEMS IN MEDICINE
UNIVERSITÄT HEIDELBERG
Video Analysis and inverse-image reconstruction.

- Co-developed a neural network for classification of phases in gait videos.
- Developed a video annotation tool for annotation of Gait Videos.
- Development of inverse reconstruction algorithm of ultrasound signal from images.

Mar.2016–Sep.2017
La Paz, Bolivia

Software Engineer
MOJIX
Design, maintain and develop software modules for big-data and web applications in IoT.

- Developed a big data bridge integration reading big inventory files to the Vizix application.
- Developed an Intelligente Business API for descriptive and predictive analysis of Retail-Data with Apache Spark.
- Development and maintainment of backend services for RFID-Signal-Locator (STARflex RFID Reader).

- 📅 Aug.2015–Feb.2016
  📍 Cobija, Bolivia

  ### Academic Manager
  COLIBRI STEM-ROBOTICS CENTER
  UNIDAD EDUCATIVA COLIBRÍ
  Establishment Scientific motivational course thought STEM-Robotics for young kids.

    - Lectured STEM and Robotics with Mindstorms-Lego-Kit.
    - Design of a STEM course program focused on physics, mathematics and programming
    - Marketing and supervising day-to-day teaching program.

- 📅 Oct.2014–Aug.2015
  📍 La Paz, Bolivia

  ### Hardware Engineer Researcher
  MATERIALS SCIENCE GROUP
  INSTITUTO DE INVESTIGACIONES QUÍMICAS
  UNIVERSIDAD MAYOR DE SAN ANDRÉS
  Implementation of an Experimental Platforms for new Lithium-Ion Batteries

    - Development a STM32-ARM embedded system for multi-sensor acquisition for the comparison of Photo-voltaic Systems (PVS). Lithium-Ion vs. Plumb-Acid.
    - Development of C++ GUI and SQL data warehouse of recorded signals of the PVS experimental setup.
    - Development of an intelligent BMS for Lithium-PVS. Optimization algorithms for minimization of Ageing-Potential-Functions.
    - Project design of an IDH founding grants.

🏆 ACKNOWLEDGEMENTS

- 📅 2015
  📍 La Paz, Bolivia

  ### Senatorial Declaration
  CHAMBER OF SENATORS OF THE PLURINATIONAL LEGISLATIVE ASSEMBLY OF BOLIVIA
  Acknowledgment of contribution to the research, technological and scientific sovereignty in representation of the Plurinational State of Bolivia due to the remarkable participation in the competition "NASA International Space Apps Challenge' 2015" with the project Sensor your Swarm"

- 📅 2015
  📍 La Paz, Bolivia

  ### Resolution of the Honorable University Council
  UNIVERSIDAD MAYOR DE SAN ANDRÉS
  Congratulations and appreciation for the outstanding participation in the competition "International Space Apps Challenge'" with the project "Sensor your Swarm" on behalf of the Universidad Mayor de San Andrés.

- 📅 2014
  📍 La Paz, Bolivia

  ### Congratulation Letter
  DEPARTMENT OF ELECTRONIC ENGINEERING
  Congratulations letter to achieve the maximum score in the bachelor's thesis.

- 📅 2010
  📍 La Paz, Bolivia

  ### First place
  IEEE-SECTION BOLIVIA
  First Place- IEEE Sumo Robots Contest at the Second Edition BETCON