

# GABRIEL

## RUDLOFF BARISON



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## ABOUT ME

Bachelor's and Master's degrees in Electronic Engineering. Master's focused on machine learning and advanced signal processing, with research in applying deep learning to fiber optic sensors. Solid understanding of deep learning, classical machine learning, and computer vision techniques. Hands on knowledge of MLOps best practices for continuous training. Curiosity and thirst for knowledge are my main drive. Analytical mindset, attention to detail, and obsession with solving complex problems.

## EXPERIENCE

### GOOGLE CLOUD PLATFORM TECHNICAL SOLUTIONS REPRESENTATIVE BIG DATA AI

Oct. 2023  
- Present

*Webhelp* | *Barcelona, Spain*

Work in internal use cases of GCP AIML services. Notably, deployed batch inference and scheduled training pipelines in Kubeflow for automatically detecting cases that need special attention in order to act proactively and improve user experience. Provide hands-on assistance with GCP services: Vertex AI (Pipelines, Models, Custom training, AutoML, Gemini, Workbench), Dialogflow, BigQuery, Composer (Managed Airflow), Pub/Sub, Dataproc (Managed Spark), Dataflow (Managed Beam) and others.

### SOFTWARE DEVELOPER INTERSHIP

Jan. 2020 -  
Apr. 2020

*Inria* | *Lille, France*

Worked on the development of metric-learn, a Python package that forms part of scikit-learn contributions package. The metric-learn package implements classic metric learning algorithms, that implicitly obtains a space transformation where the Euclidean distance is proportional to the semantic relation between pairs. My main contribution was the implementation of [SCML].

### DEVELOPMENT ENGINEER INTERNSHIP

Jan. 2019 -  
Apr. 2019

*Kauel* | *Santiago, Chile*

During my first internship, I gained practical experience in IoT development and AI research, contributing to key projects and enhancing my technical skills. I worked on designing and developing systems, interfacing with clients, and delivering proof-of-concept demos.

## EDUCATION

### B.S. IN ELECTRONIC ENGINEERING

2014-2020

*Universidad Técnica Federico Santa María* | *Valparaíso, Chile*

(Mention in computers, submention in telecommunications)

Application of artificial intelligence in the context of fiber optic sensors.,  
Thesis topic: "Peak detection of spectrally-overlapped fibre Bragg gratings using an unsupervised convolutional neural network autoencoder"

PUBLICATIONS

Articles	<div><div>Gabriel Rudloff and Marcelo A. Soto (2023). "Peak detection of spectrally-overlapped fibre Bragg gratings using an autoencoder convolutional neural network". In: <i>European Workshop on Optical Fibre Sensors (EWOFS 2023)</i>. DOI: 10.1117/12.2679924.</div><div>Rudloff, Gabriel and Marcelo A. Soto (2024). "Multipeak Wavelength Detection of Spectrally Overlapped Fiber Bragg Grating Sensors Through a CNN-Based Autoencoder". In: <i>IEEE Sensors Journal</i> 24.13, pp. 20674-20687. DOI: 10.1109/JSEN.2024.3400819.</div></div>
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ACHIEVEMENTS

Awards	<ul style="list-style-type: none"><li>Academic Merit (2014-2017)</li><li>2nd place in FEUTFSM Environmental Ideas 2015</li></ul>
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SKILLS

Program- ming lan- guages	Python, SQL, BASH, C/C++, Matlab, Assembly, Java, Verilog, $\text{\LaTeX}$ , HTML
Frameworks, Libraries & Technologies	Git, Numpy, Pytorch, Tensorflow, Pandas, Sklearn, Xgboost, Matplotlib, Seaborn, PySpark, Pytest, OpenCV, Altium Designer, Vrep
Languages	<ul style="list-style-type: none"><li>Spanish (Native)</li><li>English (Full professional proficiency)</li></ul>
Hobbies	<ul style="list-style-type: none"><li>Guitar &amp; piano</li><li>Bouldering - Biking - Surfing</li></ul>

CONTACT INFO

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