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 ML, and computer vision techniques. Hands on knowledge of MLOps best practices for inference pipelines and continuous training. My preferred way of acquiring knowledge is through hands on learning. Some of my personal projects are described on my personal webpage and may also be found on my Github profile.

EXPERIENCE

GOOGLE CLOUD PLATFORM TECHNICAL SOLUTIONS REPRESENTATIVE - BIG DATA & AI
Oct. 2023 - Present

Webhelp | *Barcelona, Spain*

- Deployed batch inference and training pipelines in **kubeflow** for automatically detecting cases that need special attention with the objective to act proactively and improve user experience.
- Provide hands-on assistance with GCP services: **Vertex AI** (Pipelines, Models, Custom training, AutoML, Generative AI, Workbench), **Dialogflow**, **BigQuery**, **Composer** (Airflow), **Pub/Sub**, **Dataproc** (Spark), **Dataflow** (Beam) and others.

SOFTWARE DEVELOPER INTERSHIP
Jan. 2020 - Apr. 2020

Inria | *Lille, France*

- Developed metric-learn, a **Python package** that forms part of scikit-learn contributions package.
- The package implements algorithms that implicitly obtains a space transformation where the Euclidean distance is proportional to the semantic relation between pairs.
- Contributed through **git** pull requests, with my main contribution was the implementation of SCML.

DEVELOPMENT ENGINEER INTERNSHIP
Jan. 2019 - Apr. 2019

Kauel | *Santiago, Chile*

- Gained practical experience in **IoT** development and implementing **AI** in **Python**.
- Contributed to key projects and enhanced my technical skills.
- 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 | *Valparaiso, Chile*
(Mention in computers, submention in telecomunications)

M.S. IN ELECTRONIC ENGINEERING   2020-2023
Universidad Técnica Federico Santa María | *Valparaiso, Chile*
(Specialty in Telecommunications and Signal Processing)

• Application of artificial intelligence in the context of fiber optic sensors.

PUBLICATIONS

Articles

Gabriel Rudloff and Marcelo A. Soto (2023). "Peak detection of spectrally-overlapped fibre Bragg gratings using an autoencoder convolutional neural network". In: *European Workshop on Optical Fibre Sensors (EWOFS 2023)*. DOI: 10.1117/12.2679924.

Gabriel Rudloff and Marcelo A. Soto (2024). "Multipeak Wavelength Detection of Spectrally Overlapped Fiber Bragg Grating Sensors Through a CNN-Based Autoencoder". In: *IEEE Sensors Journal* 24.13, pp. 20674–20687. DOI: 10.1109/JSEN.2024.3400819.

SKILLS

Programming languages

Python, SQL, BASH, C/C++, Matlab, Assembly, Java, Verilog, LaTeX, HTML

Frameworks, Libraries & Technologies

Kubeflow, Airflow, Git, Numpy, Pytorch, Tensorflow, Pandas, Sklearn, Xgboost, Matplotlib, Seaborn, PySpark, Pytest, OpenCV, Altium Designer, Vrep

Soft Skills

Analytical Thinking, Problem-Solving, Attention to Detail, Communication Skills, Collaboration, Continuous Learning, Creativity

Languages

• Spanish (Native)
• English (Full professional proficiency)

Hobbies

• Guitar & piano, Bouldering - Biking - Surfing

CONTACT INFO

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