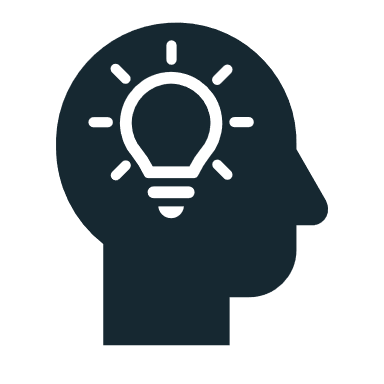
Career Objective

Projects/Publications

Contact

Data Scientist

Leonardo Queiroz



Video-Based Breathing Rate Monitoring in Sleeping Subjects

*Published in: 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC) – Toronto/ON - Canada*

* It addresses the challenge of detecting the breathing cessation in sleeping subjects applying near-infrared cameras and deep learning.
* Performed image processing, exploratory data analysis and implemented optical-flow method for motion detection, pose estimation algorithm (Deep Learning) and statistical analysis through Linear Correlation Analysis and Bland-Altman plot.

Thermal-Mask – A Dataset for Facial Mask Detection and Breathing Rate Measurement

*Published in: 2021 IEEE International Conference on Information and Digital Technologies (IDT) – Zilina - Slovakia*

* It addresses the challenge of detecting the worn of facial masks on thermal images and through the mask colour variations (pixels), calculates the individual's respiratory rate.
* Performed image processing and implemented synthetic dataset development, object detection (Cascade-RCNN), computer vision and statistical analysis through Average Precision Metric and Linear Correlation Analysis.

University of Calgary, Calgary/AB, Canada

*Teaching Assistant, May 2019-Dec 2019*

* Guide, assist and evaluate Mechanical Engineering students in the laboratory practices of the Fundamentals of Mechatronics course.
* Score the pre-labs and projects involving circuit assembly with Arduino platform programming and use of sensors and actuators such as DC motor, stepper motor, transistors, diodes, LEDs, LDR, gyroscope and others.

Professional Experience

Additional Skills

**Python**

* Scikit (learn, Image, video, …),
* OpenCV, Pillow
* Pandas, Numpy,
* Seaborn, Matplotlib,
* Keras, TensorFlow, Pytorch.
* Scipy (stats, signal, linalg, …)

**MATLAB**

**SQL**

**Analytical Thinking Problem Solving**

**Team Leadership Tolerant & Flexible**

**Problem Solving**

Neural Networks and Deep Learning (DeepLearning.ai - Coursera) / 2020

Data Science Fundamentals with Python and SQL Specialization (IBM - Coursera) / 2021 (In Progress)

Certifications

Education

**University of Calgary, Calgary/AB**

*MSc in Biomedical Engineering,*

*GPA 4.0/4.0 ,* October 2021

**Federal Institute of Education, Science and Technology of Ceara Ceara/BR**

*BSc in Mechatronics Engineering,*

*GPA 3.1/4.0 ,* Nov 2014

*Relevant Coursework:* Biometric Tech & System, Pattern Recognition

*Awards & Honors:*

[CAPES Scholarship](https://www.iie.org/programs/capes)

*Extracurricular Activities:*

Piano

Calgary/AB - Canada

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[syanshk@ucalgary.ca](mailto:syanshk@ucalgary.ca)

Professor/Supervisor

References

As an enthusiast about Data Science and Machine Learning, in transition to a new area of expertise, I look forward to an opportunity to deepen my acquired knowledge and share my personal experience consolidating my technical knowledge.

Petrobras, Fortaleza/CE, Brazil

*Electrical Maintenance Technician (Instrumentation), Jan 2016-Dec 2016*

* Perform corrective, preventive and predictive maintenance in Offshore Automation and Instrumentation Systems, observing the availability of materials, tools, and maintenance history through the ERP software (SAP R/3). It included updating, calibration and changes to control valves, transmitters, pressure switches, flow sensors, thermostats, pumps, and others.
* Monitor and adjust the variables of equipment and processes through the supervisory system (SCADA) and/or PLC programming, keeping the operation safe and environmentally correct.
* Use specific and complementary technical and operational know-how according to the relevant technical instructions, drawings, standards, and legislation always with safety regulations and follow the business processes.

UFC – Federal University of Ceara, Fortaleza/CE, Brazil

*Substitute Professor, Jan 2015-Aug 2015*

* Teach the fundamentals of Computer Programming and Programming for Engineering using the C/C++ Language for students of Engineering courses using a systematic plan of lectures, demonstrations, discussion groups, laboratory work, seminars, case studies and independent and group projects.
* Develop the curriculum, teaching materials and outlines for the courses.
* Supervise independent or group projects, field placements, laboratory work and hands-on training.

SENAI – National Service for Industrial Training, Maracanau/CE, Brazil

*Educational Instructor, Aug 2011-Nov 2014*

* Teach students of technical courses (of the areas such Automation, Instrumentation, Mechanical, Electromechanical) using a systematic plan of lectures, demonstrations, discussion groups, laboratory work, seminars, case studies, field assignments and independent or group projects.
* Teach subjects as: Analog and digital electronics, microcontrollers, basic electricity DC/AC, mechanical drawing, PLC and so on.
* Develop curriculum, teaching materials and outlines for courses.
* Supervise independent or group projects, field placements, laboratory work and hands-on training
* Serve on committees concerned with matters such as budgets, curriculum revision, and course and diploma requirements.
* Guide the course completion work.

Please click on my website and/or LinkedIn links for additional information and details about the projects!

Website: [leoqueiroz.com](http://www.leoqueiroz.com/) or leopqrz.github.io

[linkedin.com/in/leo-queiroz/](https://www.linkedin.com/in/leo-queiroz/?locale=en_US)

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