Leonardo Queiroz

Data Scientist

🎯 Career Objective

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.

💡 Projects/Publications

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.

💼 Professional Experience

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.

👤 References

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Supervisor (UofC)

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Professor/Supervisor

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👤 Contact

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➕ Additional Skills

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

MATLAB
SQL
Analytical Thinking
Team Leadership
Problem Solving

⚙️ Certifications

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

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

🎓 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

Extracurricular Activities:
Piano

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 or leopqrz.github.io

linkedin.com/in/leo-queiroz/

References

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