# **Luan Rios Campos**

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# **EDUCATION**

# M.Sc., Computing Modelling and Industrial Technology, University Center Senai Cimatec, Salvador, BA, Brazil 2018-ongoing

Concentrations: Artificial Intelligence, Deep Learning, Geophysics

Thesis Advisor: Erick Giovani Sperandio Nascimento, Ph.D.

Diploma in Computer Science (Artificial Intelligence), University of Kent, Canterbury, Kent, UK 2014-2015

B.Eng., Computer Engineering, State University of Feira de Santana, Feira de Santana, BA, Brazil 2012-2018

# **TEACHING EXPERIENCE**

# Instructor, 2013

State University of Feira de Santana

Short-course: Programming Mobile Robots Using the ARIA API

# **WORKING EXPERIENCE**

# Data Scientist, Software/BigData - SENAI CIMATEC, 2019-ongoing

Working with data analysis, statistics, anomaly detection, multilayer perceptron, convolutional neural networks, autoencoders and clustering applied to a dataset containing data acquired by pressure sensors.

# Scholarship Researcher, Supercomputing Center - SENAI CIMATEC, 2018-2019

Worked with Particle Swarm Optimization, Genetic Algorithms, code optimization, parallelism and supercomputing applied to geophysics problems. Also, worked with deep learning applied to the seismic inversion problem.

# Fullstack Developer, BenMelhor, 2016-2018

Was responsible for maintaining and developing new features for both the server and client-sides of the startup's software product. Developed most features in the back-end application. Developed most features in the front-end application. Developed two mobile applications using two different frameworks. Participated in the decisions of new features development

#### **RESEARCH EXPERIENCE**

# Researcher, Supercomputing Center - SENAI CIMATEC, 2018-ongoing

Has been working with Artificial Intelligence techniques such as multilayer perceptrons, recurrent networks, fully convolutional networks, ensemble methods and evolutionary algorithms in a variety of tasks involving optimisation, time-series, regression and judicial processes

# Summer Project Researcher, University of Kent, June 2015-September 2015

Worked with data mining and feature selection on bioinformatics datasets containing annotations from the Gene Ontology database of the following model organisms: Drosophila melanogaster, Mus musculus, Caenorhabditis elegans and Saccharomyces cerevisiae

# Scientific Researcher, State University of Feira de Santana, 2013-2014

Studied and applied a fuzzy-logic-based system to control the velocity of navigation of mobile robots considering their current velocity, the navigation trajectory and their inclination angle when making a turn

# **PUBLICATIONS**

Campos, L. R.; Nogueira, P., Moreira; D; Nascimento, E. G. S. . "An Empirical Analysis of the Influence of Seismic Data Modeling for Estimating Velocity Models with Fully Convolutional Networks". In: The 23rd Multi-conference on Systemics, Cybernetics and Informatics: WMSCI 2019, 2019, Florida.

Campos, L. R.; Nogueira, P.; Nascimento, E. G. S. . "Tuning a Fully Convolutional Network for Velocity Model Estimation". In: Offshore Technology Conference Brasil, 2019, Rio de Janeiro.

Campos, L. R.; Nogueira, P.; Nascimento, E. G. S. . "Estimating Initial Velocity Models for the FWI Using Deep Learning". In: 16th International Congress of the SBGf, 2019, Rio de Janeiro.

Sarinho, V. T.; Campos, L. R. . "SAMob - Sistema Móvel de Geolocalização e Geoprocessamento para Locais de Atendimento em Saúde". *Journal of Health Informatics*, v. 6, p. 96-101, 2014.

Campos, L. R.; Pires, M.G. . "An Empirical Comparison of Hierarchical and Ranking-Based Feature Selection Techniques in Bioinformatics Datasets". In: The Symposium on Knowledge Discovery, Mining and Learning (KDMiLe), 2017, Uberlândia. *PROCEEDINGS OF THE 5TH SYMPOSIUM ON KNOWLEDGE DISCOVERY, MINING AND LEARNING*, 2017. p. 113-120.

Campos, L. R.; Pires, M.G. . "Programming Mobile Robots Using the ARIA API". In: IV Escola Regional Computação Bahia Alagoas Sergipe (ERBASE) - WTICGBASE, 2014, Feira de Santana. *Anais da ERBASE - Escola de Computação Bahia-Alagoas-Sergipe*, 2014.

# **PRESENTATIONS**

Johnson, Colin.; Shier, Steven. Gibson, James. Campos, L.R., Dinares, Jorge, Cragg, Josh. (2014). "Artificial Intelligence in Video Games". Poster presented at the Poster Fair of the Project Week, School of Computing, University of Kent

Campos, L. R.; Pires, M.G. (2014). "Programming Mobile Robots Using the ARIA API". Paper presented at Escola Regional Computação Bahia Alagoas Sergipe (ERBASE) - WTICGBASE, State University of Feira de Santana

# **GRANTS AND FELLOWSHIPS**

EMBRAPII Grant (Senai CIMATEC Research Grant, 2018)

CNPq Grant (scholarship for the Science without Borders programme, 2014-2015)

PROBIC Scholarship (State University of Feira de Santana, 2013-2014)

# **PROFESSIONAL MEMBERSHIPS**

**Brazilian Computing Society Member** 

# **RELEVANT SKILLS**

Programming skills in Python, Java, Javascript, PHP and  $\ensuremath{\mathsf{C}}$ 

Data and statistical analysis

Artificial Intelligence skills in recurrent neural networks (LSTM and GRU), multilayer perceptron, convolutional neural networks (U-Net), autoencoders

Experience with fuzzy logic and evolutionary algorithms such as genetic algorithms and particle swarm optimisation

Experience with web and mobile development and data analysis

Fluent in English, Portuguese

Can understand and speak Spanish at a basic level