

Matheus Torquato

Computer Engineer, MSc.

Contact

Swansea, Wales
United Kingdom

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Expertise

Artificial Intelligence,
Machine Learning,
Data Science, Data
Mining, Embedded
Computing, Digital
Systems,
Reconfigurable
Computing and
Human-Computer
Interaction.

Skills

Python, MATLAB,
TensorFlow, Scikit
Learn, Pandas,
NumPy, SciPy, Version
control systems,
Translating complex
scientific concepts to
non-experts,
Proactivity,
Organisation,
Communication,
Responsibility and
Discipline

Certification

Huawei Certified ICT
Associate – Artificial
Intelligence

Languages

English
Portuguese

Summary

BEng and MSc in Computer Engineering. Three years of experience in applying Machine Learning to manufacturing processes. Expertise in scientific and applied research in the topics of Artificial Intelligence, Data Science, Embedded Computing, Digital Systems and Human-Computer Interaction. Well-developed skills employing scientific methods through experimental design, exploratory data analysis and hypothesis testing. Enthusiastic about utilising novel analytical approaches to address real-world challenges and improve commercial outcomes with data. Looking to learn on a daily basis, knowledge is never too much.

Experience

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|-----------|--|------------------------|
| 2018–Now | ASTUTE 2020
<i>Project Assistant (Machine Learning) - June to Now</i>
• Leading the development of projects involving machine learning, data science, computer vision and optimisation.
• Designing regression, classification and predictive models for different processes in the Welsh manufacturing sector.
• Delivering actionable insights from industrial datasets focusing on supporting managerial informed decisions. | Swansea, Wales, UK |
| 2015–2015 | Tata Steel
<i>Process Control Engineering Trainee - September to October</i>
• Developed a mobile app (VB programming language) for logging field measurements, previously performed manually.
• Collaborated in the selection of power metering devices for updating the company's high voltage substation network. | Port Talbot, Wales, UK |
| 2014–2014 | Petrobras
<i>Engineering Intern - March to May</i>
• Assisted in the final stage of a Programmable Logic Controller ladder code development. | Natal, RN, Brazil |
| 2014–2014 | National Institute for Space Research (INPE)
<i>Engineering Intern - January to March</i>
• Coded a frequency-based signal detecting software (MATLAB) used by low altitude satellites. | Natal, RN, Brazil |

Education

2016-2017	Masters in Computer Engineering Final Mark: 10/10 Included A Period in The SMART Lab (Ottawa, Canada) As A Visiting Researcher.	UFRN - Brazil
2014-2015	Undergraduate in Computer Science Final Mark: 7.1/10 Scholarship Awarded from The Science Without Borders Programme	Swansea University - Swansea, Wales
2013-2015	Undergraduate in Computer Engineering Final Mark: 9.6/10 Result Among the Top 0.16% Highest in The History of This Undergraduate Course.	UFRN - Brazil

Additional Activities

2020	Project Development Modelling ML	Github
2020	Online Course Quantitative Finance & Algorithmic Trading in Python	Udemy
2019	Online Course Python for Financial Analysis and Algorithmic Trading	Udemy
2018	Online Course Introduction to User Experience	University of Michigan - edX
2015	Volunteer Researcher Volunteer Researcher in the field of Human-Computer Interaction.	Future Interaction Technology Lab - Swansea University
2014	Research Project Embedded Applications Using Microcontrollers and FPGA.	Machine Learning and Intelligent Instrumentation Laboratory - UFRN
2013	Research Project Using Computational Tools in Wind Turbine Study.	Computer Engineering Department - UFRN

Publications

2021	Journal Paper Evaluating the burden of COVID-19 on hospital resources in Bahia, Brazil: A modelling-based analysis of 14.8 million individuals.	Nature Communications
2019	Journal Paper High-Performance Parallel Implementation of Genetic Algorithm on FPGA.	Circuits, Systems, and Signal Processing
2019	Journal Paper Parallel Implementation of Reinforcement Learning Q-Learning Technique for FPGA.	IEEE Access
2019	Journal Paper Deep Neural Network Hardware Implementation Based on Stacked Sparse Autoencoder.	IEEE Access
2016	Journal Paper - (Honorable Mention) Emergeables: Deformable Displays for Continuous Eyes-Free Mobile Interaction.	CHI 2016