

Gabriel Guimarães Carvalho

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Education

Universidade Federal de Pernambuco – UFPE <i>PhD. Student in Computer Science</i>	Aug. 2019 – Aug. 2022 (interrupted) <i>Recife, BR</i>
Università di Roma “La Sapienza” <i>PhD. degree in Physics and Relativistic Astrophysics</i>	Feb. 2014 – Feb 2017 <i>Rome, IT</i>
Universidade Federal de Pernambuco – UFPE <i>M.Sc. degree in Mathematics</i>	2011 – 2013 <i>Recife, BR</i>
Universidade Federal de Pernambuco – UFPE <i>B.Sc. degree in Mathematics</i>	2008 – 2010 <i>Recife, BR</i>

Experience

Computer Vision Data Scientist <i>Moray</i> <ul style="list-style-type: none">• Computer Vision and Image Processing• Data preprocessing and Data Analysis• Geographic Information System• Multispectral Drone and Satellite Image Processing	Jul. 2022 – Present <i>São Paulo/Remote, BR</i>
Computer Vision Data Scientist <i>SpaceTime Labs</i> <ul style="list-style-type: none">• Computer Vision and Image Processing• Data preprocessing and Data Analysis• Geographic Information System• Multispectral Satellite Image Processing	Jul. 2021 – Jul. 2022 <i>São Paulo/Remote, BR</i>
Ph.D. Researcher <i>Projeto CIn - Motorola</i> <ul style="list-style-type: none">• Computational Photography• R&D of image processing and quality assessment tools• Deep Learning research and development• Data preprocessing and Data Analysis	Sep. 2019 – Jun. 2021 <i>Recife, BR</i>
Postdoctoral Researcher <i>Universidade Federal Rural de Pernambuco – UFRPE</i> <ul style="list-style-type: none">• Alternative gravitational theories and geometric methods in Physics	2017 – 2018 <i>Recife, BR</i>
Lecturer <i>Universidade Federal de Pernambuco – UFPE</i> <ul style="list-style-type: none">• Calculus I, II, III• Analytic Geometry• Linear Algebra• Calculus in one complex variable	Nov 2017 – Jul 2019 <i>Recife, BR</i>
Lecturer <i>Universidade Federal de Pernambuco – UFPE</i> <ul style="list-style-type: none">• Calculus I, II• Analytic Geometry	Apr 2012 – Jan 2014 <i>Recife, BR</i>

Publications

A Deep Learning Approach to Mobile Camera Image Signal Processing. WORKSHOP ON INDUSTRY APPLICATION - CONFERENCE ON GRAPHICS, PATTERNS AND IMAGES (SIBGRAPI), 33. , 2020, Evento Online. Anais. Porto Alegre: Sociedade Brasileira de Computação, 2020 . p. 225-231.

Jose Ivson S. Silva, Gabriel G. Carvalho, Marcel Santana Santos, Diego J. C. Santiago, Lucas Pontes de Albuquerque, Jorge F. Puig Battle, Gabriel M. da Costa, and Tsang Ing Ren

On the hypotheses of Penrose's singularity theorem under disformal transformations. Eur.Phys.J.C 80 (2020) 3, 265

Eduardo Bittencourt, Gabriel G. Carvalho, Iarley P. Lobo, and Leandro Santana

The geometry of null-like disformal transformations. Int.J.Geom.Meth.Mod.Phys. 16 (2019) 11, 1950180

Iarley Lobo and Gabriel G. Carvalho

Scalar field self-force effects on a particle orbiting a Reissner-Nordström black hole. Phys.Rev.D 94 (2016) 12, 124028

Donato Bini, Gabriel G. Carvalho, and Andrea Geralico

Extended disformal approach in the scenario of Rainbow Gravity. Phys.Rev.D 93 (2016) 4, 044005

Gabriel G. Carvalho, Iarley P. Lobo, and Eduardo Bittencourt

On the disformal invariance of the Dirac equation. Class.Quant.Grav. 32 (2015) 185016

Eduardo Bittencourt, Iarley P. Lobo, and Gabriel G. Carvalho

Technical Skills, Language Skills, and Interests

OS: Linux, macOS

Programming Languages: Python (proficient), C++ (familiar), Java (familiar), Matlab (familiar), Go (beginner)

Libraries: OpenCV, Pandas, Matplotlib, Numpy, Scipy, Tensorflow + Keras, Scikit-Image, Scikit-Learn, Pytorch, Geopandas, Rasterio

Version Control: Git, DVC (Data Version Control)

Cloud: AWS s3

Writing: \LaTeX , Office

Languages: Portuguese (native), English (fluent), Italian (conversational), Norwegian (beginner)

Interests: Machine Learning, Computer Vision and Image Processing, MLOps, Mathematics, Travel, Music, Photography, Nature, Philosophy, Brazilian Jiu-Jitsu

Extracurricular

Specialization: Deep Learning by DeepLearning.AI on Coursera. Certificate earned at July 12, 2020

Specialization: Mathematics for Machine Learning by Imperial College London on Coursera. Certificate earned at Dec. 12, 2020

Course: Machine Learning by Stanford University on Coursera. Certificate earned at Mar. 18, 2021