Márcia Vagos

marcia.vagos@gmail.com
+47 91755467
www.linkedin.com/in/marcia-vagos
www.researchgate.net/profile/Marcia_Vagos2
https://marciavagos.github.io
https://github.com/marciavagos

Key qualifications

- Research and development;
- Computational modelling and simulation;
- Finite Element Analysis; PDE and ODE solvers;
- Software development;
- Data science: statistical modeling, machine learning, image analysis, signal processing;
- Data management and databases;
- Uncertainty quantification and sensitivity analysis of numerical models;
- Systems engineering.

Work experience

Jan. 2021 — **Data scientist, Semcon Norge AS, Norway**

- Project R&D and tech lead within the medical software industry;
- Image and signal processing;
- Data engineering, data analyses, database management;
- Software development.

Mar. 2016 — Sep. 2020 **PhD Candidate, Simula Research Laboratory and University of Oslo, Norway**
Marie Curie Early Stage Researcher Fellowship within the AfibTrain-Net project

- Research on Atrial Fibrillation mechanisms;
- Computational modeling and simulation of cardiac cells.
- Sensitivity analysis and data processing.

Feb. 2014 — July 2015 **Research assistant, Forschungszentrum Informatik, Germany**

- 3D modeling of the human eye using finite volume methods;
- Thermal simulations in the retina by laser irradiation with Ansys Fluent;
- Experimental optical measurements of laser-induced retinal damage.

Jan. — July 2013 **Master thesis student, Faculty of Engineering, University of Porto, Portugal**

- Development of novel carbon nanotube-polymer composite materials;
- Experimental characterization of chemical and physical material properties;
- Bacterial adhesion assays on developed materials.

Feb. — July 2012 **Erasmus intern, Department of Computer Science, Aalto University, Finland**

- Postprocessing and analyses of human brain fMRI datasets;
- Application of statistical modelling techniques to temporarily decorrelate brain activation patterns based on stimuli information.

Computational skills

- Programming: Python, Matlab, R, C++ , HTML, Javascript , XML, CSS, PHP.
- Modelling/simulation: FEniCS, Meshlab, Gmsh, FreeCAD, ANSYS Fluent, HyperMesh, PyMesh, CARP (cardiac electrophysiology), OpenCore, 3D Slicer
- Image processing: openCV, scikit-image, 3D Slicer, ITK SNAP
- Development: Jupyter Notebook, Git, Docker, bash scripting
- Databases: SQL, MongoDB, InfluxDB
- Other: Latex, Inkscape, Labview, Visio

Other experience

Nov. — Dec. 2020	Photography intern, The Art Trotter (Oslo).
May — July 2018	Research mentor, Simula Research Laboratory.
Oct. — Dec. 2015	Cultural travel in South America.
Oct. — Nov 2013	Secretary assistant, Faculty of Engineering of the University of Porto.

Education

Mar. 2016 — Sep. 2020 **Doctoral Degree**
Simula Research Laboratory
Department of Informatics at the University of Oslo

Sep. 2008 — Jul. 2013 **Integrated Masters Degree in Bioengineering**
Faculty of Engineering of the University of Porto
The Abel Salazar Biomedical Sciences Institute

Volunteering

May 2021	Grand Award Judge at 2020 Regeneron ISEF
Feb. 2020	Photojournalism for Vårt Oslo
2016 — 2017	Dance teaching at social events

Courses

May 2021	Data Modeling with MongoDB, MongoDB University
Feb. 2021	Elements of Artificial Intelligence
Feb. 2021	MongoDB basics, MongoDB University
Dec. 2020	Introduction to the Arctic: Climate – University of Alberta, Coursera
Nov. 2020	Mountains 101 – University of Alberta, Coursera
June 2017	Summer School in Cardiac Arrhythmias, University of Copenhagen, Denmark
May 2017	RegML: Regularization Methods for Machine Learning, Simula Research Lab., Norway
Jan. 2017	Geilo Winter School in Machine Learning, Geilo, Norway
July 2016	Suurph Summer School in Computational Physiology, Simula Research Laboratory, University of Oslo, and University of California, San Diego
June 2016	Image-based Biomedical Modelling Summer School, Utah State University, US
May 2016	Virtual Physiological Human Institute Summer School, Barcelona