# CV |
# MARIA
# VILA POUCA

**Nationality**

Portuguese

**Date of Birth**

25/10/1994

**Address**

Rua Da Passagem, 648
2º Andar
4440-565 Valongo
Portugal

**Contact info**

+351 913372096

mcpvilapouca@gmail.com

**LinkedIn Profile**

https://www.linkedin.com/in/maria-vila-pouca

**Portfolio**

https://mcpvilapouca.github.io/

## Profile

I am a curious young professional with good communication skills. I am a fast learner with great motivation to apply my skills and experience to solve real-world problems. More than 4 years of research in engineering have given me key analytical and innovation skills.

## Skills

- Good capacity to interact with colleagues in international and multidisciplinary settings
- Enthusiastic and rapid learner
- Advanced analytical, writing and communication skills
- Experience with data analysis and experimental design
- Programming skills in python: numpy, pandas, scikit-learn, matplotlib. Basic understanding of nltk, keras/tensorflow
- Programming skills in MATLAB and FORTRAN
- Competent with CAD 2D and 3D software (AutoCAD, Solidworks)
- Competent with finite element software (ABAQUS)

## Professional Experience

**DigestAid - Consulting through INEGI** (03/2022-Present)

Data Science and applied ML: data preprocessing, model selection and evaluation.

**Postdoctoral researcher** (05/2022-Present), Institute for Science and Innovation in Mechanical and Industrial Engineering (INEGI)

InterLynk project. Development of a numerical framework for the optimization of the additive manufacturing process of hydrogel scaffolds for tissue regeneration.

**PhD researcher** (09/2017-03/2022), Faculty of Engineering of University of Porto (FEUP)

Project design and general management. Coordinated with international collaborators. Developed of complex finite element models and user defined subroutines for the simulation of complex and nonlinear materials. Collected and analyzed data to present at conferences and publish scientific manuscripts.

**Visiting Researcher** (09/2018-10/2019)**,** University of Michigan, USA.

Designed and conducted research experimental studies on low-cycle fatigue of soft biological tissues. Analyzed and processed the data to publish scientific manuscripts.

**Invited Assistant Teacher** (2018-2022), Faculty of Engineering of University of Porto (FEUP), Portugal.

Taught Structural Mechanics II, Linear Algebra and Analytical Geometry and Computer Programming I of the integrated Masters in Mechanical Engineering. Developed new strategies to motivate students and increase their satisfaction with the courses.

**Research assistant** (06/2016-09/2018). Institute for Science and Innovation in Mechanical and Industrial Engineering (INEGI).

Developed and implemented complex finite element simulations. Collected, processed and analyzed data for publication in scientific journals and present at conferences.

## Education

**PhD. in Mechanical Engineering** (2017 – 2022). Faculty of Engineering, University of Porto.

**MSc. in Mechanical Engineering** (2015-2017). Faculty of Engineering, University of Porto.

**BSc in Mechanical Engineering** (2012-2015). Faculty of Engineering, University of Porto.

## Courses and Certifications

[Applied Data Science with Python](#) **(**University of Michigan/Coursera**)**

Introduction to Data Science with Python
Applied Plotting, Charting & Data Representation in Python
Applied Machine Learning in Python
Applied Text Mining in Python
Applied Social Network Analysis in Python

## Research grants, scholarships and awards

**PhD Scholarship from Portuguese Foundation for Science and Technology (FCT)** (01/2019-02/2022).

**Fulbright Scholarship for Research** (09/2018-12/2018). Mechanical Engineering Department, University of Michigan, USA.

**Pedagogical recognition award** (2022). Faculty of Engineering, University of Porto

## Publications

I have 13-peer reviewed publications, 8 of them in the top journals of my field. You can find a detailed publication list in my [ResearchGate profile](#).

## Other activities

**Erasmus+ Student Exchange Program** (08/2015-12/2015). JAMK University of Applied Sciences, Jyväskylä, Finland

**Instructor** (Summer 2016), University of Porto, Portugal. Introduced high-school students to Mechanical Engineering.

Federate **Artistic Roller Skating** athlete (2000-2015)

Participation on **International Championships** such as Oeiras 2013-European Artistic Roller Skating Championship and Reus 2014-Artistic Roller Skating World Championship in representation of the Portuguese National Team

Participation in the "Elizabeth Johnson Organization English Language Course", in Bristol, England, from 19th to 31th of July of 2009