

# CV |

## MARIA

## VILA POUÇA



Nationality  
Portuguese

Date of Birth  
25/10/1994

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LinkedIn Profile  
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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 and knowledge.

### 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 tensorflow
- Programming skills in MATLAB and FORTRAN
- Competent with CAD 2D and 3D software (AutoCAD, Solidworks)
- Competent with finite element software (ABAQUS)

### Professional Experience

**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. Coordinating with international collaborators. Development of complex finite element models to optimize the management of labor. Collected and analyzed data to present at conferences and publish scientific manuscripts.

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

Design and conducted field research experimental studies on low-cycle fatigue of soft biological tissues.

**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. Successfully evacuated exams and assignments.

**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.

**Instructor** (Summer 2016), University of Porto, Portugal.

Introduced high-school students to Mechanical Engineering.

### 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

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