

Glass Informatics Workshop at BAM

Prof. Daniel R. Cassar

Illum School of Science



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Outline

- 1 About the speaker
- 2 Workshop overview
- 3 Acknowledgments

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Who?

- Assistant Professor at the Ilum School of Science
- Ph.D. In Materials Science and Engineering
 - Advisor: Prof. Edgar D. Zanotto
- Developer of GlassPy, GlassNet, GLAS, and ViscNet
- Open Science enthusiast



<https://github.com/drcassar>
<https://www.linkedin.com/in/drcassar>
<https://www.researchgate.net/profile/Daniel-Cassar-3>
<https://scholar.google.com/citations?user=oh1z-qoAAAAJ>

Where?



CNPEM
Brazilian Center for Research
in Energy and Materials



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Topics that I will cover

- 1 Brief introduction of the speaker [*you are here*]
- 2 Python programming language
 - 1 Python basics
 - 2 Numpy
 - 3 Pandas
 - 4 Seaborn
- 3 Neural Networks
 - 1 Neural Networks basics
 - 2 GlassNet and ViscNet
 - 3 Creating and training Neural Networks
 - 4 Strategies for optimizing Neural Networks
- 4 SciGlass data with GlassPy

Python environment



<https://colab.research.google.com>

Code and reading resources

<https://github.com/drcassar/bam2024>

A quick note

We will use and explore some features of GlassPy.

GlassPy is a free software Python module currently under development.

GlassPy is a labor of love, developed mostly in my spare time with the hope that it can be useful to the glass community. Please note that it comes without warranty.

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