

BRUNA WUNDERVALD

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SUMMARY

I am a statistician, reproducible research enthusiast, R and git lover and active user. I like statistical modelling in general, package and dashboards development, text mining and APIs. I am specially interested in Bayesian inference, multivariate analysis, feature extraction and probabilistic graphical models.

Currently, I am pursuing my PhD at the Hamilton Institute in Maynooth, Ireland. I am a part of Andrew Parnell's research group, and our work is mostly related to the development of new Bayesian methods for machine learning and its many possible applications.

EXPERIENCE

Statistician

Priced

2018 São Paulo, São Paulo, Brazil

- Analysis of expenditure data in Brazil: data wrangling, product elasticity and churn, consumers clusterization and general behaviour.

Statistics Intern

City Hall of Pinhais

2017 Pinhais, Paraná, Brazil

- Geostatistical data analysis on the financial situation of the people living in Pinhais.

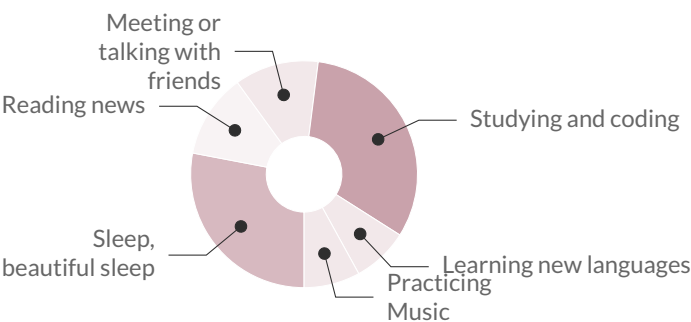
Statistics Intern

Bradesco Bank

2016-2017 Curitiba, Paraná, Brazil

- Credit risk modelling with logistic regression.

A DAY OF MY LIFE



EDUCATION

Ph.D. candidate in Statistics

Maynooth University

Sept 2018 - *

Thesis theme: Bayesian Machine Learning

B.Sc. in Statistics

Federal University of Paraná

April 2013 - August 2018

Thesis theme: Machine learning and chord based feature engineering for genre prediction in popular Brazilian music

PROJECTS



R-Ladies Organizer

São Paulo and Curitiba chapters, <https://rladies.org/>



R-Music Blog

<https://r-music.rbind.io/>

STRENGTHS

Bayesian Methods Multivariate
Statistics Variational Inference

R tidyverse Python Git GitHub
HTML CSS LaTeX

LANGUAGES

English ●●●●●
Portuguese ●●●●●
French ●●●●●
Italian ●●●●●
Spanish ●●●●●
Russian ●●●●●

PUBLICATIONS

Books

- P. E. UFPR, *Git manual, project of tutorial extension in statistics*. 2016.

Journal Articles

- B. D. Wundervald and W. M. Zeviani, "Machine learning and chord based feature engineering for genre prediction in popular Brazilian music," Feb. 2019. arXiv: [1902.03283](https://arxiv.org/abs/1902.03283). [Online]. Available: <http://arxiv.org/abs/1902.03283>.

R Packages on CRAN

- B. D. Wundervald, *Chorrrds: Music chords extraction*, R package version 0.1.8, 2018. [Online]. Available: <https://CRAN.R-project.org/package=chorrrds>.
- B. Wundervald, *Vagalumer: Access to the 'vagalume' api*, R package version 0.1.6, 2017. [Online]. Available: <https://CRAN.R-project.org/package=vagalumeR>.

Miscellaneous

- B. Wundervald, F. Lima, and S. Ferrari, *Distributions on the unit interval catalog*, Shiny Application, 2018. [Online]. Available: <https://brunaw.shinyapps.io/dissertacao-francimario/>.
- B. Wundervald and W. Zeviani, *Non-linear models catalog*, Shiny Application, 2017. [Online]. Available: <https://github.com/brunaw/catreg>.
- B. Wundervald, *R-music: Introduction to the vagalumer package*, 2018. [Online]. Available: <https://r-music.rbind.io/posts/2018-11-22-introduction-to-the-vagalumer-package/>.
- B. Wundervald and J. Trecenti, *R-music: Introduction to the chorrrds package*, 2018. [Online]. Available: <https://r-music.rbind.io/posts/2018-08-19-chords-analysis-with-the-chorrrds-package/>.
- B. Wundervald and T. M. Dantas, *R-music: Rspotify*, 2018. [Online]. Available: <https://r-music.rbind.io/posts/2018-10-01-rspotify/>.
- B. Wundervald and J. Trecenti, *R-music: Music21*, 2018. [Online]. Available: <https://r-music.rbind.io/2018-10-06-music21>.

TEACHING EXPERIENCE

- 2019 Statistical Machine Learning, Tutoring, Maynooth University, 1st Semester.
- 2018 Linear Models 2, Tutoring, Maynooth University, 2nd Semester.
- 2017 R Markdown, Taught Short Course, Federal University of Paraná Curitiba, Brazil, 20h, September 2017.

GRANTS

- 2017 Scientific Initiation, supervised by Prof. PhD Wagner Hugo Bonat, *Construction of Multivariate Probability Distributions*. Duration: 12 months
- 2016 Project of Tutorial Extension in Statistics, supervised by Prof. Dr. Walmes Marques Zeviani, *Non-Linear Models Catalog*. Duration: 10 months
- 2015 Laboratory of Applied Statistics, supervised by Prof. Dr. Cesar Augusto Taconeli and Prof. Dr. Fernanda Buhner Rizzato. Duration: 6 months
- 2014 Teaching Initiation Program, supervised by Prof. Dr. Jomar Camarinha Filho Course: Basic Statistics. Duration: 4 months
- 2014 Teaching Initiation Program, supervised by Prof. Dr. Jomar Camarinha Filho Course: Statistics II. Duration: 4 months

ORAL COMMUNICATIONS

- 2018 Construction and Implementation of Multivariate Dispersion Models,
63rd meeting of the Brazilian Region of the IBS
Curitiba, Brazil, May 2018.
- 2018 Music Data Analysis with R,
R Day - First national meeting of R users
Federal University of Paraná
Curitiba, Brazil, May 2018.
- 2016 Non-Linear Models Catalog,
Integrated Week of Teaching, Research and Extension,
Federal University of Paraná
Curitiba, Brazil, 2016.
- 2015 Results of the Applied Statistical Analysis Laboratory,
Integrated Week of Teaching, Research and Extension,
Federal University of Paraná, Curitiba, Brazil, 2015.

SHORT COURSES ATTENDED

- 2019 Applied Machine Learning, *Rstudio Conference 2019,*
Austin, Texas , 12h
- 2018 Statistical Computing, *Cambridge University,* 12h
- 2018 Statistical Inference, *Cambridge University,* 12h
- 2018 Web Scraping with R, *Curso-R,* 8h.
- 2018 Introduction to Cognitive Diagnostic Models with Stan,
Federal University of Paraná, 2h.
- 2018 Distributed data structures with R, *Federal University of Paraná,* 2h.
- 2018 Dashboards with R, *Curso-R,* 4h.
- 2018 Probability Theory, *University of São Paulo,* 60h.
- 2017 Machine Learning with R, *University of São Paulo,* 4h.
- 2017 APIs with R, *University of São Paulo,* 4h.
- 2017 Multivariate Covariance Generalized Linear Models for the
Analysis of Experimental Data,
Federal University of Lavras, 4h.
- 2017 Regression models for count data: beyond the Poisson model,
Goiânia, GO, Brazil, 4h.
- 2017 Elements of Computational Statistics,
Federal University of São Carlos, 6h.
- 2016 Modelling with SAS, *HSBC Bank Brazil,* 20h
- 2016 Statistical Modelling Academy, *HSBC Bank Brazil,* 192h.
- 2015 Conversation in English, *English without Borders,*
Federal University of Paraná, 16h.
- 2015 English for Professional and Academic Goals,
English without Borders,
Federal University of Paraná, 16h.
- 2015 English with Music, *English without Borders,*
Federal University of Paraná, 16h.
- 2015 Advanced Excel, *Center of School-Enterprise Integration of Paraná,* 20h.

POSTER PRESENTATIONS

- 2018 Chord Based Feature Extraction for
Genre Classification in Popular
Brazilian Music, *1st WiMIR,*
Paris, France, September 2018.
- 2017 Non-Linear Models Catalog,
XV School of Regression Models,
Goiânia, Brazil, March 2017.
- 2016 The use of R at Federal University
of Paraná, *I International Seminar
of Statistics with R,* Niterói,
Rio de Janeiro, Brazil, May 2016.

REFEREES

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