Curriculum Vitæ

Personal Information

Lucas Emanuel Resck, BSc (full name: Lucas Emanuel Resck Domingues)

MSc student in Mathematical Modeling

Fundação Getulio Vargas

School of Applied Mathematics

Praia de Botafogo, 190, 5th floor – 22250-900

Rio de Janeiro, Brazil

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Homepage: https://lucasresck.github.io/ GitHub: https://github.com/lucasresck

Google Scholar: https://scholar.google.com.br/citations?user=ROLstoAAAAAJ

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EDUCATION

2022-present MSc, Mathematical Modeling

Fundação Getulio Vargas (FGV EMAp), Rio de Janeiro – RJ, Brazil

Scholarship holder at FGV EMAp

Advisor: Jorge Poco

2018–2021 BSc, Applied Mathematics

Fundação Getulio Vargas (FGV EMAp), Rio de Janeiro - RJ, Brazil

Scholarship holder at the Center for the Deleopment of Mathematics and Sciences

(CDMC) of FGV

Thesis: Inferring and Explaining Potential Citations to Binding Precedents in

Brazilian Supreme Court Decisions

Advisor: Jorge Poco

2015–present Technical education, Mechatronics

Federal Center for Technological Education of Minas Gerais (CEFET-MG), Varginha

– MG, Brazil

Incomplete (missing internship) in favor of BSc.

ACADEMIC EXPERIENCE

02/2022-present Visual Data Science Lab

Master's researcher

Fundação Getulio Vargas, Rio de Janeiro, Brazil

Research topics: machine learning, natural language processing, machine learning

explainability

Supervisor: Jorge Poco

10/2022–12/2022 Vision, Language, and Learning Lab

Visiting scholar

Department of Computer Science of Rice University, Houston, USA

Research topics: training data attribution, machine learning, natural language

processing, machine learning explainability, computer vision

Supervisor: Vicente Ordóñez

09/2020-02/2022 Visual Data Science Lab

Scientific initiation researcher

Fundação Getulio Vargas, Rio de Janeiro, Brazil

Research topics: machine learning, data science, natural language processing

Supervisor: Jorge Poco

03/2017-02/2018 Federal Center for Technological Education of Minas Gerais

Junior scientific initiation fellow

Federal Center for Technological Education of Minas Gerais (CEFET-MG), Brazil

Research topic: Circuits for driving low power direct current motors

Supervisor: Antonio José Bento Bottion

03/2016-02/2017 Federal Center for Technological Education of Minas Gerais

Scientific initiation volunteer

Federal Center for Technological Education of Minas Gerais (CEFET-MG), Brazil Research topic: Brazilian Robotics Olympiad (OBR) 2016, Practical Modality

Supervisor: Paulo Henrique Cruz Pereira

Professional Experience

12/2019-02/2020 **EloGroup**

Summer Intern in Data Science

01/2019-02/2019 PSR Power Systems Research

Summer Intern in Optimization

PEDAGOGICAL EXPERIENCE

01/2023-present Fundação Getulio Vargas

Educational Development Institute (IDE)

Position: Professor of Introduction to Programming

Course: Web Systems Development

03/2021–06/2021 Fundação Getulio Vargas

Teaching assistant of Ordinary Differential Equations

08/2020–11/2020 Fundação Getulio Vargas

Teaching assistant of Calculus in Several Variables

03/2020–06/2020 Fundação Getulio Vargas

Teaching assistant of Calculus in One Variable

Publications

Journal Publications

1. Resck, L. E., Ponciano, J. R., Nonato, L. G., and Poco, J. Legalvis: Exploring and Inferring Precedent Citations in Legal Documents. *IEEE Transactions on Visualization and Computer Graphics* 29, 6 (June 2023), 3105–3120. Presented at IEEE VIS: Visualization & Visual Analytics 2022. Date of Publication: 18 February 2022

Conferences

 PEREIRA, T., NASCIMENTO, E., RESCK, L. E., MESQUITA, D., AND SOUZA, A. Distill n Explain: explaining graph neural networks using simple surrogates. In *Proceedings of The 26th International Conference on Artificial Intelligence and Statistics* (Valencia, Spain, Apr. 2023), vol. 206 of *Proceedings of Machine Learning Research*, PMLR, pp. 6199–6214. ISSN: 2640-3498

Theses

1. DOMINGUES, L. E. R. Inferring and Explaining Potential Citations to Binding Precedents in Brazilian Supreme Court Decisions. BSc thesis, Fundação Getulio Vargas, Rio de Janeiro, Brazil, Dec. 2021

Technical Reports

- 1. Domingues, L. E. R., and Blahun, J. G. Circuits for Driving Low Power Direct Current Motors. Scientific initiation project report, Federal Center for Technological Education of Minas Gerais, Varginha, Brazil, 2018. Original title in Portuguese: "Circuitos para Acionamento de Motores de Corrente Contínua de Baixa Potência"
- 2. Blahun, J. G., Regina, L. d. S. P., and Domingues, L. E. R. Brazilian Robotics Olympiad OBR2016, Level II Practical Modality. Scientific initiation project report, Federal Center for Technological Education of Minas Gerais, Varginha, Brazil, 2016. Original title in Portuguese: "Olimpíada Brasileira de Robótica OBR2016, Modalidade Prática de Nível II"

PROJECTS

2022-present	Similarity Analysis in Decisions of the Brazilian Supreme Court. FGV EMAp.
2020-2021	Topological Data Analysis in Legal Documents. FGV EMAp. Resulted in Journal Publication 1.

VOLUNTEERING

- 1. $\bf IMPA$ National Institute for Pure and Applied Mathematics. Support team member at ICM2018. 08/2018.
- 2. \mathbf{DAMA} Academic Directory of Applied Mathematics at FGV. Treasurer. 08/2018-08/2019.

Honors, Awards & Scholarships

05/2022-02/2023	Scholarship (tuition fee) holder in the Graduate Support Program for Private Education Institutions (PROSUP) of the Coordination for the Improvement of Higher Education Personnel (CAPES).
04/2022	Academic distinguished undergraduate award.
2022–present	MSc scholarship holder at FGV EMAp.
08/2018 – 07/2021	Scholarship holder in the Scientific Initiation and Master's Program (PICME).
2018–2021	Selected by the Talent Selection program from the Center for the Development of Mathematics and Sciences (CDMC) of FGV. BSc scholarship holder.
2018	1st place at FGV EMAp's entrance exam.
03/2017-02/2018	Scholarship holder at the CEFET-MG and the National Council for Scientific and Technological Development (CNPq) in the Junior Scientific Initiation Fellowship.
2012-2017	Brazilian Public School Mathematics Olympiad (OBMEP). Gold (1), silver (3), and bronze (1) medals, and honorable mention (1).
2012-2017	Brazilian Astronomy and Astronautics Olympiad (OBA). Silver (2) and bronze (1) medals.

SCHOOLS AND WORKSHOPS ATTENDED

2022	8th Workshop on Mathematical Solutions for Industrial Problems. Research Center in Mathematics Applied to Industry (CeMEAI) at the University of São Paulo.
2016	Junior scientific initiation course (Mentores) in mathematics (plane analytical geometry) for medalists of the Brazilian Public Schools Mathematics Olympiad (OBMEP). Scholarship holder at CNPq.
2013–2015	Junior Scientific Initiation Program (PIC-Jr) in mathematics for medalists of the Brazilian Public Schools Mathematics Olympiad (OBMEP). Scholarship holder at CNPq.

LANGUAGES

Portuguese (native)

English (BRASAS proficiency certificate: 1155167ABF96708C7826980)

Reference

Prof. Dr. Jorge Poco (BSc & MSc advisor)

Position: Professor at Fundação Getulio Vargas – FGV

Institute: School of Applied Mathematics (EMAp)

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[CV compiled on May 21, 2023 for the website https://lucasresck.github.io/]

Rio de Janeiro - Brazil, May 21, 2023