Rúbia R. **Guerra**

SYSTEMS ENGINEER · R&D ANALYST

Belo Horizonte, MG, Brazil

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Education

Universidade Federal de Minas Gerais
SYSTEMS ENGINEERING, B.S.
Belo Horizonte, MG
Aug. 2016 - Dec. 2019

- Merit award for having the second-highest grade within the graduating class of 2019
- Represented Systems Engineering at UFMG's Career Day (Mostra das Profissões), open to the general community

Universidade Federal de Minas Gerais
ELECTRICAL ENGINEERING, B.S.
Belo Horizonte, MG
Aug. 2013 - Jul. 2016 (interrupted)

- Organized the Autonomous Robots Competition (CoRA) as a member of PET-EE
- Promoted the study of Engineering and the role of universities in marginalized communities and schools
- Helped organize Ruptura (2015), a yearly event about entrepreneurship and innovation

University of California
SUMMER SESSIONS D, 3.85/4.00
Berkeley, CA
Jul. 2014 - Aug. 2014

- Summer courses in Functional Neuroanatomy and Cognitive Science

Coursera Machine Learning (Stanford University, May 2017) • Big Data Specialization (UCSD, Aug 2020 expected)

Skills

Programming C/C++ • Python • R • Julia • Unix/Linux • SQL • MATLAB • LaTeX
Languages Fluent: English, Portuguese • Intermediate: Spanish, Mandarin • Elementary: Vietnamese
Software Tableau Desktop • Power BI • Visual Paradigm • Weka • KNIME
Interests Neuroscience • Artificial Intelligence • Assistive Technologies

Experience

R&D Analyst
COMPUTER SCIENCE DEPARTMENT, UFMG
Belo Horizonte, MG
Feb 2020 - current

- Developing web crawlers for a research and development project using Python

Data Science Resident
TENBU / COMPUTER SCIENCE DEPARTMENT, UFMG
Belo Horizonte, MG
May 2019 - Dec 2019

- Apply the CRISP-DM methodology to identify business opportunities and solve clients' problems
- Develop data driven solutions using Python, Keras and scikit-learn

Computer Vision Intern
ENACOM
Belo Horizonte, MG
Feb. 2019 - May 2019

- Document ongoing projects and write scientific papers for submission in Computer Vision journals
- Research state-of-the-art techniques for Computer Vision-related problems
- Develop Proof of Concepts using OpenCV, Keras and scikit-learn

Data Analytics Intern
SOMOS Educação / AppProva
Belo Horizonte, MG
Jun. 2018 - Mar. 2019

- Generate reports from platform usage data
- Develop and update dashboards containing strategic information for the Customer Success team
- Elaborate, analyze, and study hypotheses of users' behavior for the design of new products

Research Assistant
ELECTRICAL ENGINEERING DEPARTMENT, UFMG · CNPQ FELLOWSHIP
Belo Horizonte, MG
Jul. 2017 - current

- Investigated the application of Machine Learning in the recognition of LIBRAS signs
- GUERRA, Rúbia Reis et al. (2018). Facial Expression Analysis in Brazilian Sign Language for Sign Recognition. Anais do Encontro Nacional de Inteligência Artificial e Computacional (ENIAC), p. 216-227.

Quality Assistant
AKVOS LABORATÓRIO AMBIENTAL E DE ALIMENTOS
Belo Horizonte, MG
Jul. 2015 - Jul. 2017

- Assist on the Quality Management System, complying with ISO/IEC 17025:2005
- Identify nonconformities and improvement opportunities, and perform audits

Research Assistant   *Belo Horizonte, MG*

Computer Science Department, UFMG · CNPq Fellowship   *Jan. 2014 - Oct. 2015*

- Investigated different approaches for the hierarchical classification of Transposable Elements' taxonomy proposed on WICKER, Thomas et al. (2007). A unified classification system for eukaryotic transposable elements. Nature Reviews Genet. 8(12):973-82.
- Compared standard flat multi-class classification and local hierarchical classification methods for the automatic annotation of DNA sequences

Extracurricular Activities

Infrastructure Team Member   *Belo Horizonte, MG*

TEDx UFMG: Quero Ser Comunidade   *Jun. 2016 - Nov. 2016*

- Plan, organize and maintain the infrastructure of TEDx UFMG 2016
- Deploy and update the event's website

Group Leader   *Belo Horizonte, MG*

Discriminação e Minorias - Práticas na Engenharia (GDM), UFMG   *Aug. 2015 - Jul. 2017*

- Research and coordinate discussions around the dynamics, characteristics, and sociocultural contexts of marginalized groups
- Identify discriminatory practices in the academic environment and in society itself
- Promote awareness and reflections regarding marginalized groups and their daily challenges
- Organized the event "Cadê a Cor, Engenharia?" (2015.12), one of the first social awareness events held the School of Engineering

Student, Software Development Track   *Belo Horizonte, MG*

Students to Business Program, Microsoft Innovation Center, PUC Minas   *Nov. 2015 - Dec. 2015*

- Software development training using C#, XAML and Azure
- Best Project Award: app ParaCasa, promote accessibility to the National Curricular Base (BNCC)

Volunteer   *Belo Horizonte, MG*

Programa de Educação Tutorial (PET) Engenharia Elétrica   *Oct. 2014 - Jul. 2016*

- Plan and arrange Electrical Engineering-related workshops, fairs and general events
- Coordinate, define requirements, and identify resources needed for executing the Autonomous Robots Competition (CoRA)
- Promote the study of Engineering and the role of universities in marginalized communities and schools

Honors & Awards

2019	**Oriane Magela Neto's Silver Medal**, School of Engineering, UFMG	*Brazil*
2019	**Academic Relevance**, XXVII Engineering School Scientific Initiation Week / Knowledge Week, UFMG	*Brazil*
2018	**Academic Relevance**, XXVI Engineering School Scientific Initiation Week / Knowledge Week, UFMG	*Brazil*
2017	**Best Business Project Presentation**, III iGEM-UFMG Summer School on Biological Machines	*Brazil*
2015	**Best Project**, Microsoft's S2B Software Development Track	*Brazil*

Presentations

XXVII Engineering School Scientific Initiation Week / Knowledge Week, UFMG   *Brazil*

Undergraduate Presenter   *Oct. 2019*

- Presented the results of my research on Machine Learning for image classification

XXVI Engineering School Scientific Initiation Week / Knowledge Week, UFMG   *Brazil*

Undergraduate Presenter   *Oct. 2018*

- Presented the results of my research on facial expression analysis in Brazilian Sign Language (Libras) for sign recognition

II Congress on Innovation and Teaching Methodologies, UFMG   *Brazil*

Presenter for PET-EE   *Oct. 2016*

- Presented the analysis of a survey on Electrical Engineering students' quality of life

Publications

2019	**GUERRA, Rúbia R. Deep Learning for Accessibility: Detection and Segmentation of Regions of Interest for Sign Language Recognition Systems**, Bachelor's thesis, UFMG	*Belo Horizonte, Brazil*
2019	**ZANON, Giulia, GUERRA, Rúbia R., et al. Development of a Database of Libras' Signs for Machine Learning: 3DCNN Case Study**, 14° Simpósio Brasileiro de Automação Inteligente (SBAI).	*Ouro Preto, Brazil*
2018	**GUERRA, Rúbia R., et al. Facial Expression Analysis in Brazilian Sign Language for Sign Recognition**, Anais do Encontro Nacional de Inteligência Artificial e Computacional (ENIAC), p. 216-227	*São Paulo, Brazil*
2016	**CHAVES, Lucas, RODRIGUES, Mateus, GUERRA, Rúbia, et al. Analysis of Quality of Life of Electrical Engineering Students**, II Congress on Innovation and Teaching Methodologies, UFMG	*Belo Horizonte, Brazil*