

Eduardo Faccin Vernier

I hold a joint PhD degree from the universities of Groningen and Rio Grande do Sul for my research on visualization methods for hierarchical and high-dimensional data. I focused on dynamic treemaps and dynamic projection techniques, creating comprehensive evaluations, developing state-of-the-art methods, and applying these in the clinical context of hyperkinetic movement disorders.

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PROFESSIONAL EXPERIENCE

Machine Learning Programs — Junior Data Scientist — Amsterdam
October 2021 – (current) – mlprograms.com
Design, implementation, and production of machine learning models for the insurance and finance sectors.

Isobar IWS Brazil — Intern Android Developer — Porto Alegre
September 2016 – February 2017 – isobar.com
Development of prototype applications for Android (Java).

SAP Labs Latin America — Intern Web Developer — São Leopoldo
January 2014 – March 2014 – sap.com
Development of a web prototype for the management of Randon's Vehicle Testing Facilities using Javascript and the SAPUI5 framework.

EDUCATION

Joint PhD in Computer Science — University of Groningen (RuG) and Universidade Federal do Rio Grande do Sul (UFRGS)
August 2017 – October 2021
— Thesis: "Visualization of Dynamic Multidimensional and Hierarchical Datasets"
— Course organization and teaching experience
— Published and presented at high profile conferences and journals
— 4+ years experience with Python, pandas, numpy, matplotlib, and ML libraries

Master in Computer Science — Universidade Federal do Rio Grande do Sul
March 2017 – August 2017 (didn't finish, upgraded to PhD program after 6 months)

Branetec Exchange Program — University of Groningen
August 2015 – July 2016

Bachelor Degree in Computer Science — Universidade Federal do Rio Grande do Sul — March 2012 – December 2016

PEER-REVIEWED ARTICLES (all PDFs and extras on [personal website](#))

Guided Stable Dynamic Projections
Proc. EuroVis, Zurich, Switzerland (Computer Graphics Forum) – 2021

Quantitative Evaluation of Time-Dependent Multidimensional Projection Techniques
Proc. EuroVis, Norrköping, Sweden (Computer Graphics Forum) – 2020

Quantitative Comparison of Time-Dependent Treemaps
Proc. EuroVis, Norrköping, Sweden (Computer Graphics Forum) – 2020

Selecting and Sharing Multidimensional Projection Algorithms: A Practical View Proc. VISGAP, Norrköping, Sweden – 2020

A Stable Greedy Insertion Treemap Algorithm for Software Evolution Visualization Proc. SIBGRAPI, Foz do Iguaçu, Brazil – 2018

Distinguished paper award
Quantitative Comparison of Dynamic Treemaps for Software Evolution Visualization Proc. VISSOFT, Madrid, Spain – 2018

Best poster award.
Quantitative Comparison of Treemap Techniques for Time-Dependent Hierarchies Proc. EuroVis, Barcelona, Spain – 2017

Metric Evolution Maps: Multidimensional Attribute-driven Exploration of Software Repositories Proc. VMV, Bayreuth, Germany – 2016

LANGUAGES Portuguese – Native English – Fluent
Spanish – Intermediate Dutch – Basic

ACADEMIC PROJECTS

NEMO Project (RuG/UMCG/Ziuz)
September 2020 – October 2021

Collaboration in a large-scale project with teams of medical and machine learning experts to develop classifiers and gain insight into hyperkinetic movement disorders.

Scientific Visualization and Computer Graphics Group (RuG)
November 2015 – July 2016 and June 2017 – July 2017

Development of temporal and high dimensional data visualization techniques applied to understanding software quality metrics evolution in open source projects.

Basin Modeling Lab (UFRGS)
May 2014 – December 2014

Development of methodologies and tools for the forecast and response to natural catastrophes in collaboration with IEEE SIGHT and Civil Defence RS. Focus on image processing in C++ and high definition large area mosaicing of aerial photography.

PET Computação Group (UFRGS)
October 2012 – January 2014

Instructor on multiple editions of Arduino and C Language courses; Collaborator on the development of small-scale robotics projects.

OTHER PROJECTS

TC de Uithof – *Technical committee*
2020 – 2021 – Development of tennis training enrolment and control systems. Built telegram bots hosted at AWS that notify members of freed training spots in real-time with 300+ subscriptions.

Bike de Boa – *Mobile Developer*
2017 – 2019 – Open source project that maps the bike parking infrastructure in Brazil with 200k+ visits.
bikedeboa.com.br