Guilherme Gonçalves Schardong

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in guilherme-schardong-310794ba

Born 03 December 1989

WORK EXPERIENCE

October 2018 – Present

Research Collaborator

Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro
- Research and development
- Working under profs. Hélio Côrtes Vieira Lopes and Sinésio Pesco on the research and development of software systems to simulate and visualize geological models using advanced Multiple-Point Geostatistics (MPS) approaches. The system is integrated with CMG IMEX simulator in order to perform flow simulations and optimizations based on the generated models

August 2016 – September 2018

Technical Expert

Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro
- Research and development
- Working under profs. Hélio Côrtes Vieira Lopes and Sinésio Pesco on the research and development of software systems to simulate and visualize geological models using advanced Multiple-Point Geostatistics (MPS) approaches. The system is integrated with CMG IMEX simulator in order to perform flow simulations and optimizations based on the generated models

February 2014 – July 2016

Researcher and Developer

Tecgraf Institute (PUC-Rio), Rio de Janeiro
- Research and development in the Reservoir Visualization group
- Worked under prof. Waldemar Celes Filho on GERESIM, a visualization and reservoir management software for black-oil reservoirs

EDUCATION

2014 – 2018

Doctorate in Computer Science

Department of Informatics (DI), Pontifical Catholic University of Rio de Janeiro (PUC-Rio)
- doctor of science in computer science with emphasis on data science
- Thesis: Visual interactive support for selecting scenarios from time-series ensembles
- Advisor: prof. Hélio Côrtes Vieira Lopes (DI); Co-advisor: profa. Simone Diniz Junqueira Barbosa (DI)

2012 – 2014

Master's degree in Computer Science

Department of Electronics and Computing (DELC), Federal University of Santa Maria (UFSM)
- master of science in applied computing with emphasis on volume visualization
- Thesis: Geração de Funções de Transferência para a Visualização Científica Utilizando Atributos Topológicos
- Advisor: prof. Cesar Tadeu Pozzer (DELC); Co-advisor: prof. José Antônio Trindade Borges da Costa (Department of Physics)

2008 – 2011

Bachelors's degree in Computer Science

Department of Electronics and Computing (DELC), Federal University of Santa Maria (UFSM)
- Thesis: Acelerando o Mean-shift com OpenCL
- Advisor: prof. Marcos Cordeiro d'Ornellas

PROJECTS

October 2018 – present

Data Science techniques and methods and its applications to well-formation tests.
This project aims to develop a machine learning and data science framework to aid reservoir modelling and production prediction using data captured during the well-conditioning test phase.

August 2016 – September 2018

SIMPAD
Development and maintenance of a system to simulate and visualize geological models following a multiple-point geostatistics approach.

January 2018 – March 2018

Insurtech Innovation Program
Research and development of new products, processes and services based on technology for insurance and reinsurance market. Sponsored by Mongeral Aegon and IRB-Brasil.

January 2015 – June 2016

Uncertainty Visualization
Development of uncertainty quantification and visualization methods with applications to black oil reservoirs and decision making.

Recent Publications

2018 SCHARDONG, GUILHERME G.; RODRIGUES, ARIANE M.B. ; BARBOSA, SIMONE D.J. ; LOPES, HÉLIO . Visual interactive support for selecting scenarios from time-series ensembles. DECISION SUPPORT SYSTEMS, v. 113C, p. 99-108, 2018.

2018 SCHIRMER, LUIZ ; QUATRIN CAMPAGNOLO, LEONARDO ; FIOL GONZÁLEZ, SONIA ; M. B. RODRIGUES, ARIANE ; G. SCHARDONG, GUILHERME ; FRANÇA, RAFAEL ; LANA, MAURICIO ; D. J. BARBOSA, SIMONE ; POGGI, MARCUS ; LOPES, HÉLIO . Visual Support to Filtering Cases for Process Discovery. In: 20th International Conference on Enterprise Information Systems, 2018, Funchal. Proceedings of the 20th International Conference on Enterprise Information Systems, 2018. v. 1. p. 38-49.

2013 SCHARDONG, G. G.; SILVA, L. J. S. ; WINCK, A. T. ; POZZER, C. T. . Agrupamento de Dados Baseado em Mean Shift Aplicado a Legendas de Séries Televisivas. In: 1st Symposium on Knowledge Discovery, Mining and Learning, 2013, São Carlos. Symposium on Knowledge Discovery, Mining and Learning, 2013.

SKILLS

Languages
Portuguese – Native speaker
English – Advanced, professional proficiency

Skills
Research and Development
Scientific Visualization
Computer Graphics
Algorithms
OpenGL
C/C++
Lua
Python

ADDITIONAL INFORMATION

Driving license
Categories A and B

Interests
Science and Technology, Economic Empowerment, Education