

# Raphaella Carvalho Diniz

Ph.D. student in Computer Science

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📍 Vancouver, Canada

## Education

2021 – present

### Ph.D. in Computer Science

SFU - Simon Fraser University

Research areas: Transfer learning, domain generalization, causal discovery

Advisor: Dr. Martin Ester

2019 – 2021

### M.S in Computer Science

UFMG - Universidade Federal de Minas Gerais

Advisor: Dr. Renato Assunção

2007 - 2011

### B.S in Information Systems

UFMG - Universidade Federal de Minas Gerais

2003 - 2006

### Associate Degree in Informatics

CEFET-MG - Centro Federal de Educação Tecnológica de Minas Gerais

## Work experience

### Fiocruz - Oswaldo Cruz Foundation

One of the most important institutions of science and technology in public health in Latin America.

I acted as a data scientist on a research group composed of an interdisciplinary team. I was responsible for collecting, processing and aggregating data from different sources, including data from Brazilian justice and public health and information from the public domain.

2020 - 2021

### Research Intern

- Extraction, processing and aggregating data from multiple sources.
- Knowledge extraction and presentations for research purposes.

### Axxiom Soluções Tecnológicas S.A.

Technology company comprised of two of the biggest players in the Brazilian power industry: CEMIG and Light.

I started as a Software Engineer and moved to a Product Manager/Business Analyst position during my 9 year period at Axxiom. During this time, I worked on the Distribution Management System (DMS) leading teams to design and implement algorithms to improve outage location, power restoration and

management of crew resources. The DMS is a mission-critical system (24/7/365) and had at that time a code base of more than 2.5 million lines of code at that time, with more than half of that being redesigned during my period at the company. The system was comprised of a team of more than 70 engineers working in different programming languages (mainly C++, Java and PL/SQL), several databases vendors (Oracle, Informix, SQLServer and Db2) and a variety of integration techniques.

2019 – 2019

#### ***Product Manager***

- Technical leadership of research projects and new features design
- Project roadmap and planning
- Design and implementation of prototypes
- Sales Proposals

2008 – 2014

#### ***Software Engineer***

- Technical leadership
- Design and implementation (Java EE, Java SE and PL/SQL)
- Technical support for mission-critical systems (Tiers II and III)
- Acceptance and unit testing

#### **CEMIG**

I started as a full-time intern in 2006, was hired as a Software Engineer in 2007 and then was relocated to Axxiom in 2008 as one of the first employees when the company was created. My time at CEMIG was mainly dedicated to designing algorithms to improve power outage location and rewriting integrations between the Distribution Management System (DMS) and the Customer Relationship Management system (CRM).

2006 – 2008

#### ***Software Engineer***

- Software design and implementation (Java EE, Java SE and PL/SQL)
- Database modeling and design
- Acceptance and unit testing

## **Publications**

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[1] Diniz, Raphaella Carvalho, Pedro OS Vaz-de-Melo, and Renato Assunção. "Evaluating the evaluation metrics for spatial disease cluster detection algorithms." Proceedings of the 28th International Conference on Advances in Geographic Information Systems. 2020.

[2] Diniz, Raphaella, Pedro Vaz-de-Melo, and Renato Assunção. Data augmentation for spatial disease mapping. eScholarship, University of California, 2021.