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# Rafael Pinto

## Senior Software Developer

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## ABOUT

PhD in Computer Science (2022), Master's degree in Computer Science (2016), Specialist in Technology and Software Development for Web (2007), and Bachelor in Systems Information (2004).

Professional with 20 years of experience in design and development of web applications, mainly working with Java, Python, MS SQL Server and PostgreSQL

Since 2014 working at Federal Institute of Science and Technology where act as Python Developer.

During the PhD process, he developed a software ecosystem for collecting, cleaning, and processing data using Natural Language Processing and Machine Learning algorithms in order to analyze the effects of a public health intervention from a perspective over time. Findings from the processed data were plotted in graphs using Matplotlib and Plotly, allowing the discussion of the impacts with different stakeholders.

## SKILLS

Proficient in Python, Django, HTML, JavaScript, Json, CSS, MS SQL Server, PostgreSQL;

Good knowledge Django REST, Scrapy, Machine Learning, Natural Language Processing (NLP), Pandas;

Development Tools and Practices: GitLab (CI/CD), Agile Methodologies (Scrum), Full Software Development Lifecycle (SDLC);

Project Management: Project Planning and Coordination

## EXPERIENCE

**Federal Institute of Education, Science and Technology of Rio Grande do Norte, Natal Area, Brazil** - *Senior Software Developer*

Apr 2014 - Present · 10 yrs 4 mos

- Developing and maintaining an ERP (Enterprise Resource Planning) called Unified Public Administration System (SUAP), which serves as software for managing the administrative processes of the Federal Institutes of Science and Technology in several states of Brazil, using Python programming language.

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- Utilizing unit testing and behave tests (Behaviour-Driven Development) to enhance quality.
  - Defining database design specifications based upon project requirements.
  - Delivering code to meet functional or technical specifications.
  - Conducting full lifecycle software development from planning to deployment and maintenance.
  - Working with server-side (Django) and front-end (HTML, CSS, and JavaScript) technologies and leveraging common design patterns to code dynamic and user-friendly systems..

### **Thalocan Research Innovations, Remote - *Project Manager***

Jan 2024 - Present · 7 mos (Contract)

- Collaborating with stakeholders to define project scope, goals, and deliverables.
- Creating detailed project plans and establishing specific timelines.
- Overseeing project progress, adjusting strategies as needed.
- Mediating conflicts and eliminating barriers to team progress.
- Coordinating sprint cycles, ensuring proper planning, review, and retrospective.
- Maintaining comprehensive project documentation, including plans, status reports, and meeting notes.

### **LAIS - Technological Innovation in Health Laboratory, Natal Area, Brazil - *Project Manager @ Telehealth Project***

Feb 2023 - Present · 1 yr 6 mos (Contract)

- Defining project scope, goals, and deliverables in collaboration with stakeholders.
- Developing detailed project plans and timelines.
- Monitoring project progress and making adjustments as necessary.
- Resolving conflicts and removing obstacles that hinder team progress.
- Planning and organizing sprint cycles, including sprint planning, reviews, and retrospectives.
- Ensuring stakeholder expectations are met and managed effectively.

### **LAIS - Technological Innovation in Health Laboratory, Natal Area, Brazil - *Senior Software developer @ Hermes Project***

Feb 2018 - Feb 2023 · 5 yr 1 mo

- Developed a software ecosystem for collecting, cleaning, and processing data using Natural Language Processing and Machine Learning algorithms to analyze the effects of a public health intervention from a perspective over time.
- Identified, researched, and evaluated innovative machine learning technologies (NLTK, Scikit-learn, Pandas, Numpy, and Matplotlib).
- Used statistical software to analyze and process large data sets.
- Collected unstructured online news data to enable the creation of a new dataset for further analysis.
- Cleaned and manipulated raw data.
- Created graphs and charts detailing data analysis results.

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- Used Scrapy Python Library to extract desired data from a given URL in an automated way.
  - Configured the deployment process via GitLab, ensuring the software was tested and deployed efficiently and effectively.

**LAIS - Technological Innovation in Health Laboratory, Natal Area, Brazil** - *Software developer @ Simaies Project*

Feb 2015 - Feb 2018 · 3 yr 1 mo

- Developed scalable web applications using the Django framework.
- Implemented RESTful APIs to facilitate communication between front-end and back-end systems.
- Designed and maintained PostgreSQL databases.
- Developed and implemented software architecture and design patterns.
- Wrote unit tests and performed integration testing to ensure software quality.
- Prepared technical documentation for new features and system architecture.
- Participated in agile development processes, including sprint planning and retrospectives.
- Communicated effectively with non-technical stakeholders to gather requirements and provide updates.
- Stayed updated with the latest industry trends and best practices in Python, Django, and PostgreSQL.
- Mentored junior developers and provided guidance on best practices.

**Doctoral Student, Athabasca University, Canada** - *Researcher*

Sep 2019 - Dec 2020 · 1yr 4 mos

- Participated in meetings, presentations, and other events.
- Built software in Python to input data gathered from various sources (using external APIs, REST, and Scrapy), enabling further analysis.
- Identified, researched, and evaluated innovative machine learning technologies.
- Conducted qualitative and quantitative analysis on assigned data.
- Created graphs, spreadsheets, and presentation slides to present findings..

**Court of Justice of Rio Grande do Norte (TJRN), Natal Area, Brazil** - *Software Developer / Software Architect*

Sep 2010 - Apr 2014 · 3yr 8 mos

- Built a software architecture based on Java components, used as a productive framework for developing new systems at TJRN.
- Developed object-oriented web applications using Java programming language and Hibernate as ORM Framework.
- Mentored interns and junior software developers through training, design reviews, and code reviews.
- Participated in code review meetings, providing input on bugs, inefficiencies, and potential solutions to emergent issues.
- Documented technical specifications and project testing methods for future reference

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**Memes Educational Technology, São Paulo Area, Brazil** - *Software Developer / Software Architect*

Jan 2008 - Aug 2010 · 2yr 8 mos

- Developed and maintained a communication portal for distance learning. Also developed the new architecture of web development projects.
- Developed object-oriented web applications using Java programming language and Hibernate as ORM Framework.
- Researched alternative solutions to problem spaces to decide best technical approaches.
- Modified existing software systems to enhance performance and add new features.
- Conducted full lifecycle software development from planning to deployment and maintenance.
- Consumed and implemented REST APIs in deploying Java applications for payment integration.

## EDUCATION

**Doctor's Degree, Computer Science**

*Federal University of Rio Grande do Norte, Natal Area, Brazil*

2019 - 2022

**Master's Degree, Computer Software Engineering**

*Federal University of Rio Grande do Norte, Natal Area, Brazil*

2014 - 2016

**Specialization, Computer Systems Analysis**

*Potiguar University, Natal Area, Brazil*

2006 - 2007

**Bachelor's Degree, Computer Systems Analysis**

*Potiguar University, Natal Area, Brazil*

2001 - 2004