

Fábio Marcos de Abreu Santos

<https://www.linkedin.com/in/fábio-marcos-santos-4bb72b7/>

Arizona, USA

fabiomarcosdev@gmail.com

+1 (928) 7888344

Emerging Technology Thought Leader

Highly developed technical and research skillset blended with an advanced educational background.

Excel at researching highly complex technical challenges and synthesizing key trends with special attention to artificial intelligence and technical strategy. Advanced communicator who is comfortable in both leadership and supportive roles who relishes opportunities to build relationships with diverse stakeholder groups.

Areas of expertise include:

Technical

- Artificial Intelligence
- Software Engineering
- Data Engineer
- Programming/Development
- IT Operations & Support

Business and Leadership

- Technological Enthusiast
- Financial/Budgeting
- Project Management
- Former Brazilian Navy CIO
- Continuous Improvement

Professional Experience

Data Engineer, AI Project Mentor, Ago 2019 - present
Northern Arizona University, Flagstaff/AZ/USA

Mining software repositories to identify opportunities to match software engineers' skills with open-source software projects using: Agile methodology (Kanban), Python(pandas, jupyter, scikit learn), R, NEO4J, PostgreSQL and Java.

A proposal to automatically labeling the GitHub projects using ML with a prediction of the skills required to solve open issues. The article "Can I Solve it? Identifying the APIs Required to Complete OSS Tasks" was accepted at Mining Software Repositories Conference 2021 (<https://2021.msrconf.org/details/msr-2021-technical-papers/35/Can-I-Solve-it-Identifying-the-APIs-required-to-complete-OSS-tasks>).

Mentoring several projects, including:

- IT operations tickets classification using machine learn techniques to General Dynamics Systems;
- Sound identification using machine learn techniques to environmental-related research;

- Intelligent generation of presentations to schools using geo-referencing data to teach children environment and sustainability; and
- Integration of test software to popular test frameworks.

The activities included: team setup, client communication, presentation of results, requirements gathering and eliciting, technical challenges study, risks management, prototyping, and project management.

AI Software Engineer, Information Systems Integration, Oct 2018 - present
DBEM Think Tank, Rio de Janeiro/RJ/Brazil

- Reducing the complexity of comparing large knowledge graphs by applying random walks and AI algorithms.

Software Engineer, Sep 2018 - Jun 2019
IBM Research, Rio de Janeiro/RJ/Brazil

Research and development of innovative solutions using knowledge modeling (hyper knowledge model), applied to the Natural Resource Knowledge Engineering Group.

Tools: Node.js, allegro graph, and others. Kanban method.

Member of the program committee in "First International Workshop on Bridging the Gap between Semantics and Multimedia Processing" SEMP2019.

Event and Program Committee members:

<http://semp.mybluemix.net/2019/>

<http://www.wikicfp.com/cfp/servlet/event.showcfp?eventid=93457©ownerid=156621>

AI Software Engineer, Ontology Alignment, Mar 2017 - present
UniRio, Rio de Janeiro/RJ/Brazil

- Artificial Intelligence (AI) subject matter expert that is responsible for conducting leading edge conducting research into new challenges involving reasoning and knowledge modeling over networks of ontologies.
- Key projects include the creation of tools to explore network matching tool for ontologies. The result of this project was the successful acceptance at OM2017, OM218 and OM2020 (<http://om2020.ontologymatching.org/>) - http://disi.unitn.it/~pavel/om2020/papers/om2020_STpaper2.pdf.

IT Superintendent, Dec 2012 - May 2017
Brazilian Navy, Rio de Janeiro/RJ/Brazil

- Relied upon for conducting Information Technology planning and responsible for setting organizational strategy for key technical projects and IT operations ensuring key metrics such as pay back, internal rate of return and total cost of ownership calculations were communicated.
- Effectively created specific metrics and action plans derived from the IT Strategy Plan.
- Successful track record of delivering improved operational efficiencies resulting in tangible organizational cost savings.
- Spearheaded the usage of the private cloud to accomplish datacenter consolidation which succeeded in onboarding business areas into the datacenter and presented hybrid cloud findings to the executive leadership team.
- Alternate Vice Director of IT and Communications and IT CFO. Supervision of the IT Director plan, supervision of suppliers and third-party contracts. Validation of RFP, bids, and acquisitions. Approval of payments: procurement and contracts.

Head of Department, Digital Systems, Feb 2012 - Dec 2012

Brazilian Navy, Rio de Janeiro

- Excelled in a key technical role that oversaw the standardization policy for all development teams throughout the Navy business units.
- Successfully led several projects including an organization-wide software standardization policy that resulted in decreased security problems in deployed systems.

Project Manager, System Analyst, and Developer, May 2002 - Dec 2011

Brazilian Navy, Rio de Janeiro

- Accountable for the development and ongoing maintenance of an amphibious warfare simulator leveraging Lua and C programming languages that contained more than 500k lines of code using customized XP agile method.
- Relied upon as a technical leader with extensive experience in both a database administrator and infrastructure specialist.
- Continuous improvement champion that through innovation successfully decreased project costs from over R\$ 300,000/annually to almost zero by analyzing technology and substitution or improving where possible with Open-Source software.

Java Developer and Instructor, Aug 2005 - Feb 2006

BRQ, Bradesco Seguros

- IT Development professional with a track record of delivering innovative elegant solutions utilizing fit for purpose programming language Java with EJB, Struts and RUP.

Education & Training

PHD, Computing (Information Systems) | Northern Arizona University (NAU) / University
Federal University of Rio de Janeiro State (UniRio)(Ongoing)

Research Projects:

Scaffolding skill acquisition to onboard OSS ecosystems. Matching skills from HR and Project's tasks (open issues in GitHub) to help newcomers succeed in Open-Source Software tasks.

The Knowledge Representation and Reasoning: focuses on the Modeling aspect, and studies alternatives for the modeling and representation of the knowledge of the human and computational agents that interact in an Information System.

MSc, Computing (Databases). | PUC-Rio University, Rio de Janeiro (2002)

Thesis: Examined the creation of mobile computing architectures with active databases for use in the exercises of the Marines with the implementation of one of the proposed architectures.

MBA, Economic Engineering & Industrial Administration | UFRJ, Rio de Janeiro

BSc, Computing | PUC-Rio University, Rio de Janeiro

Kanban and Scrum - Udemy (2018) - **AWS** - Cloud Treinamentos (Ongoing), **Data Boot Camp** – Data Science, and machine learning with Phyton, Jupiter, Panda, statistics and other tools (2018), **ITIL** - (2017), **Big Data Fundamentals** - AWS (2017), **DBA PostgreSQL** (2009), **Project Management** (2008), **Linux administration** (2005), **ArcGIS** (2004), **Java Programming** (2002), **DBA Oracle** (1997)

English - Advanced - Toefl: 92 - SEP 2018.

French - Intermediate.

Portuguese - Mother Language.