

# DANIEL SANTANA ROCHA

## SUMMARY

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I have a undergraduate degree in Mathematics Applied with emphasis in Scientific Computation in UFRJ (Federal University of Rio de Janeiro - 2016) and master in mathematics by IMPA (Instituto Nacional de Matemática Pura e Aplicada - 2015).

Has experience in Mathematics in the area of Algebraic Geometry, Number Theory and Combinatorics.

Expertise in Machine Learning and bigdata with emphasis in NLP (sklearn, gensim, tensorflow, scipy, numpy, pytorch, doc2vec, word2vec and several other technologies and frameworks) and Reinforcement Learning (Thomson sampling and Q Learning).

Expertise in the area of bigdata with Hadoop, Spark (pyspark, scala), Google Cloud (BigQuery, VertexAI), Databricks.

Advanced knowledge: Python, Scala, Rust for machine learning and bigdata infrastructure. Good knowledge of javascript (Vue, ReactJs) for web interfaces.

Expertise with databases like Cassandra, Redis, Elasticsearch, Mongo, Openlink Virtuoso (SPARQL), InfluxDB and Others

Worked with several Big Data technologies like Kafka, Spark.

Advanced knowledge in containerized deployments with docker + docker compose, kubernetes, docker-swarm, VMs and automation of deployments in these technologies.

Basic knowledge in devops for maintenance of Kubernetes and docker swarm.

Expertise in linux server administration.

Very advanced english (speak since childhoods), basic knowledge of french.

## ABOUT ME

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I love Mathematics and Programming, almost the Master more young of Brazil, also work with programming since 15 years in ml/bigdata environment like electoral statistics. Already worked for Globo (higher rank Machine Learning Engineer focused in NLP, MAB (AB with reinforcement learning) and automated deploy) and Ifood (Machine Learn Engineer/Data Scientist focused in calculating the time of arrival of delivery).

## PROJECTS

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EMPLOYER	Personal Challenge
TITLE	<b>Snake Game with Q-Learning</b>
	Technologies Python, pandas, tensorflow.
	<a href="https://github.com/DanielSanRocha/SnakeAI">https://github.com/DanielSanRocha/SnakeAI</a>
	<a href="https://danielsanrocha.com/snakeai">https://danielsanrocha.com/snakeai</a>

EMPLOYER	Personal Use
TITLE	<b>Xatu Observer - Monitor of APIs, Services, Docker Containers</b>
	Technologies Scala, telegram API, finagle, MySQL, Redis, ElasticSearch.
	Monitor and collect logs and send it to elasticsearch for analysis.
	<a href="https://github.com/danielsanrocha/xatu-observer">https://github.com/danielsanrocha/xatu-observer</a>

## PROFESSIONAL HISTORY

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PERIOD	<b>February 2023 — Currently</b>	
EMPLOYER	<b>iFood</b>	Sao Paulo, Brasil
TITLE	<b>Machine Learn Engineer 2B</b>	
TECHNOLOGIES	Technologies Kafka, databricks, aws, rust, scala, python, scala, java, redis.	
PERIOD	<b>Janeiro 2019 — Fenereiro 2023</b>	
EMPLOYER	<b>Globo</b>	Rio de Janeiro, Brasil
TITLE	<b>Specialist Bigdata Machine Learning Engineer</b>	
TECHNOLOGIES	NLP, Bert, Kafka, thompson sampling, google cloud, sklearn, python, scala, hadoop, spark, java, redis, virtuoso, elasticsearch, kibana, docker, docker swarm, kubernetes, gensim, tensorflow, pytorch and other technologies.	
PERIOD	<b>Março 2016 — Junho 2016</b>	
EMPLOYER	<b>Federal University of Rio de Janeiro - UFRJ</b>	Rio de Janeiro, Brasil
TITLE	<b>Professor</b>	
TECHNOLOGIES	Professor at UFRJ programming (Java, tomcat, Android, Angular, REST Server).	
PERIOD	<b>Março 2014 — Junho 2015</b>	
EMPLOYER	<b>TECHNO Soluções</b>	São João de Meriti/RJ, Brasil
TITLE	<b>Trainee in Bigdata Analisis for Electoral Statistics</b>	
TECHNOLOGIES	PHP, MySQL, Java	

## ACADEMIC

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PERIOD	<b>2016 — StandBy</b>	
TITLE	<b>PhD in Mathematics</b>	
INSTITUTE	<b>Instituto Nacional de Matemática Pura e Aplicada</b>	Rio de Janeiro, Brasil
	Orientador: Eduardo Esteves	
	Bolsista: Conselho Nacional de Desenvolvimento Científico e Tecnológico	
	Título da Dissertação: Limit of Linear Series	

## ACADEMIC

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PERIOD	<b>2013 — 2015</b>	
TITLE	<b>Master in Mathematics</b>	
INSTITUTE	<b>Instituto Nacional de Matemática Pura e Aplicada</b>	Rio de Janeiro, Brasil
	Orientador: Eduardo Esteves	
	Co-orientador: Emanuel A.S.	
	Bolsista: Conselho Nacional de Desenvolvimento Científico e Tecnológico	
	Título da Dissertação: Limite de Pontos de Weierstrass, Ano de obtenção: 2015	
PERIODO	<b>Janeiro 2015 — Março 2016</b>	
TÍTULO	<b>Graduação em Matemática Aplicada</b>	
INSTITUTO	<b>University of Rio de Janeiro - UFRJ</b>	Rio de Janeiro, Brasil
ÊNFASE	<b>Cientific Computation</b>	

## EXPERTISES

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<b>Programming Language</b>	Python, Scala, Rust, SQL (BigQuery and MySQL/MariaDB), Javascript, PHP, Haskell
<b>Protocols</b>	XML, JSON, REST, TCP/IP, HTTP, HTTPS
<b>Databases</b>	Cassandra, SQL Databases, MongoDB, Redis, Elasticsearch
<b>Tools</b>	Git, GitLab, Latex, Nginx, Kafka
<b>Frameworks</b>	Spark (scala and pyspark), pandas, scikit-learn, gensim, spacy, React, Express (NodeJS),
<b>Others</b>	NLP (Word2Vec, Doc2Vec, TFIDF, Bert), ML (Thompson sampling, Q learning)
<b>Others</b>	Gaussian Process, Microeconomics

<b>Português</b>	Nativo.
<b>English</b>	Advanced.
<b>French</b>	Understand little, Speak little, Write reasonable, Reading advanced.

TITLES

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<b>2013</b>	Silver Medal Olimpíada de Matemática do Cone Sul
<b>2012</b>	Gold Medal na OMCPLP, Olimpíada de Matemática da Comunidade dos Países Língua Portuguesa
<b>2012</b>	Bronze Medal na IYPT Brasil, INTERNATIONAL YOUNG PHYSICISTS' TOURNAMENT
<b>2012</b>	Bronze Medal na OBF, Olimpíada Brasileira de Física
<b>2012</b>	Bronze Medal na OBM, Olimpíada Brasileira de Matemática
<b>2012</b>	Bronze na OQRJ, Olimpíada Brasileira de Química do Estado do Rio de Janeiro
<b>2012</b>	Gold Medal na OMCPLP, Olimpíada de Matemática da Comunidade dos Países de Língua Portuguesa
<b>2012</b>	Silver Medal na IJSO Brasil, International Junior Science Olympiad
<b>2011</b>	Bronze Medal na OMERJ, OMERJ - Olimpíada de Matemática do Estado do Rio de Janeiro
<b>2011</b>	Gold Medal na OBF, Olimpíada Brasileira de Física
<b>2011</b>	Gold Medal na OBM, Olimpíada Brasileira de Matemática
<b>2010</b>	Bronze Medal na OBA, Olimpíada Brasileira de Astronomia
<b>2010</b>	Bronze Medal na OBM, Olimpíada Brasileira de Matemática
<b>2009</b>	Silver Medal na OMERJ, OMERJ - Olimpíada de Matemática do Estado do Rio de Janeiro

PRODUCTIONS - INTERVIEWS, TABLE, PROGRAMS E COMMENTS MIDIA

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<b>ROCHA, D. S.</b>	A Gold medal nas Olimpíadas de matemática na comunidade dos países da Língua Portuguesa., 2012
<b>ROCHA, D. S.</b>	É possível Estudar Matemática sem sofrer, 2012
<b>ROCHA, D. S.</b>	A medalha de ouro nas Olimpíadas de matemática na comunidade dos países da Língua Portuguesa., 2012. (Programa, Programa de Rádio ou TV)
<b>ROCHA, D. S.</b>	Reportagem Fantástico. (Programa, Programa de Rádio ou TV)
<b>Link</b>	Canal do youtube com entrevistas: <a href="https://www.youtube.com/channel/UCvC92Y82h2cBcGgGWBcwBoQ/featured">https://www.youtube.com/channel/UCvC92Y82h2cBcGgGWBcwBoQ/featured</a>