

DANIEL SANTANA ROCHA

SUMMARY

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 childhood), basic knowledge of french.

ABOUT ME

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

EMPLOYER	Personal Challenge
TITLE	Snake Game with Q-Learning
	Technologies Python, pandas, tensorflow.
	https://github.com/DanielSanRocha/SnakeAI
	https://danielsanrocha.com/snakeai
EMPLOYER	Personal Use
TITLE	Xatu Observer - Monitor of APIs, Services, Docker Containers
	Technologies Scala, telegram API, finagle, MySQL, Redis, ElasticSearch.
	Monitor and collect logs and send it to elasticsearch for analysis.
	https://github.com/danielsanrocha/xatu-observer

PROFESSIONAL HISTORY

PERIOD	February 2025 — Currently	
EMPLOYER	WL3i - Fundo de Investimentos	Rio de Janeiro, Brasil
TITLE	Mathematician and Software Developer	
TECH	Scala, Finatra, Finagle, python, pandas.	
ABOUT	Data mining and system development for finding and negotiating the acquisition of "precatórios" rights.	
PERIOD	July 2024 — January 2025	
EMPLOYER	iFood	Sao Paulo, Brasil
TITLE	Machine Learn Engineer 2B	
TECH	Kafka, databricks, aws, rust, scala, python, scala, java, redis.	
PERIOD	January 2019 — February 2024	
EMPLOYER	Globo	Rio de Janeiro, Brasil
TITLE	Specialist Bigdata Machine Learning Engineer	
TECH	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	Março 2016 — Junho 2016	
EMPLOYER	Federal University of Rio de Janeiro - UFRJ	Rio de Janeiro, Brasil
TITLE	Professor	
TECH	Professor at UFRJ programming (Java, tomcat, Android, Angular, REST Server).	
PERIOD	Março 2014 — Junho 2015	
EMPLOYER	TECHNO Soluções	São João de Meriti/RJ, Brasil
TITLE	Trainee in Bigdata Analysis for Electoral Statistics	
TECH	PHP, MySQL, Java	

ACADEMIC

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

ACADEMIC

PERIOD	2013 — 2015	
TITLE	Master in Mathematics	
INSTITUTE	Instituto Nacional de Matemática Pura e Aplicada	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	Janeiro 2015 — Março 2016	
TÍTULO	Graduação em Matemática Aplicada	
INSTITUTO	University of Rio de Janeiro - UFRJ	Rio de Janeiro, Brasil
ÊNFASE	Cientific Computation	

EXPERTISES

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

LANGUAGES

Português	Nativo.
English	Advanced.
French	Understand little, Speak little, Write reasonable, Reading advanced.

TITLES

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

PRODUCTIONS - INTERVIEWS, TABLE, PROGRAMS E COMMENTS MIDIA

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