# Luis Miguel Rojas Aguilera

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### **EXPERIENCE**

# **STACKSPOTAI (AI.STACKSPOT.COM)** | FULL-STACK ENGINEER Apr 2024 – Currently

- Developed a AI Developer assistant using Retrieval Augmentation (Langchain, PGVector, PymuPDF), LLMs and Embeddings models (OpenAI).
- REST APIs using FastApi, sqlAlchemy, Redis.
- Services orchestration and deploy with Docker, Github Actions and Terraform
- Monitoring and observability with Datadog, Graphana, Metabase Cloudwatch and Langsmith.
- Cloud-based solutions using Kafka (AWS MSK), SNS, Lambda functions, APIGateway, DynamoDB, CloudFormation, CDK.
- Front-end UI components with React, react-redux, react-router, MUI.
- Unit&Integration tests with pytest, jest and cypress.
- BFF services using AWS lambda functions, APIGateway and DynamoDB.

### VORTIGO (PLATFORM.VEASE.AI) | FULLSTACK ENGINEER

Apr 2024 - Nov 2024

- RAG-based Chatbot from PDF documents (OpenAI, Bedrock, PGVector, Langchain, PymuPDF).
- REST APIs using FastApi, pymongo, Redis.
- Front-end with NextJS, shadon, tailwind.
- AWS Lambda functions for embedding indexing from PDF documents integrated with SNS and S3.
- Services orchestration and deploy with Docker, EKS and Azure pipelines.

### FTLNETWORKX | PYTHON DEVELOPER

May 2024 - Jul 2024

- Platform for in-house router's appliances network data analysis.
- Implemented services to collect network data from OpenSense API on FreeBSD and store to ClickHouse database and Graphana, using FastApi.
- Create Graphana dashboards with aggregations on top of ClickHouse records.

# MAGIC PAYMENTS (MAGIC-21.MINTLIFY.APP) | FULLSTACK WEB DEVELOPER

Aug 2023 - May 2024

- Payment gateway for transactions between bank checking accounts.
- Full-Stack Web development with Django, NextJs, shaden and TailwindCss
- REST APIs with Django Rest Framework.
- Webhooks integrations with Dwolla and Plaid for banking operations.
- CI/CD pipelines with Docker and Github actions.
- Unit tests with pytest and jest.

## **UNDERWRITER LABS (UL.COM)** | FULLSTACK WEB DEVELOPER March 2023 – Aug 2023

- Full-Stack Web development with NodeJs, Vue (vuetify), Quasar and TailwindCss.
- Vue.js to develop dynamic and interactive user interfaces.
- Configuration of auto-scaling groups, load balancers and AWS services like EC2, S3, RDS, and Lambda functions.

#### **EDUCATION**

### MASTER'S DEGREE IN COMPUTER SCIENCES

UNIVERSIDADE FEDERAL DO AMAZONAS, BRASIL (UFAM UFAM.EDU.BR) March 2015 - March 2017

### NANODEGREE MACHINE LEARNING ENGINEER

UDACITY Jan 2019 - Jan 2020

#### **BACHELOR'S DEGREE IN INFORMATICS**

UCI (HAVANA, CUBA) Jan 2010 - Feb 2014

### **SKILLS**

#### **PROGRAMMING**

9+ years:
Python • JavaScript • Bash
5+ years:
C++ • PHP • TypeScript • LaTeX

#### **TECHNOLOGY**

Git/Github • AWS • Linux
React • NextJs • Angular • Vue • ExtJs
Django • FastApi • Flask • Tornado
EKS • CloudWatch • Lambda • DynamoDb
• APIGateway • SNS • SQS • SAM •
Localstack • MKS • RabbitMQ •
CloudFormation • CDK
Cypress • Jest • Pytest
Yii • Symfony
MLFlow • Keras • Tensorflow • pandas •
numpy

Docker • Kubernetes • Github Actions • CircleCl • Terraform Datadog • Graphana • Metabase • ElasticStack

MongoDb • Postgres • MySQL • Clickhouse • DyamoDB • Redis

#### **MANAGEMENT**

Jira • Confluence • Trello Scrum • Kanban • RUP • Xtreme Programming Loom • Notion • Signal

#### **LANGUAGES**

English • TOEFL C2 • Advanced Spanish • Native Portuguese • Advanced

# PASSWORDBOSS (PASSWORDBOSS.COM) | FULLSTACK WEB DEVELOPER

Jun 2021 - March 2023

- Secure data store and sharing encryption platform.
- Full-Stack Web development with Django, NextJs and Tailwindcss.
- Progressive web-app implemented with workbox, DexieDB and Electron.
- REST APIs using Node.js and Django.
- Asymetric encryption algorithms using PGP.
- Leveraged Vue.js, Next.js and Tailwind CSS to develop dynamic and responsive user interfaces, collaborating closely with UX/UI designers.
- CI/CD pipelines using CircleCI, Docker, and GitHub Actions.
- Streamlining the development workflow and ensuring seamless integration of new features and bug fixing.
- Docker containers for packaging and deploying applications to AWS infrastructure.
- AWS services including SNS, S3, EC2, Lambda, DynamoDb

### MOTOROLA R&D (ELDORADO ELDORADO.ORG.BR) | MACHINE LEARNING ENGINEER

Oct 2020 - Jun 2021

- Tech lead and consultant for Motorola Camera Team.
- Computer Vision and AI for image enhancement and reconstruction (deblurring, denoising, demosaicing, super-resolution) for Motorola phone's camera pipeline.
- Serverless solutions with Azure functios and Cosmos DB.
- Edge AI for mobile phones: MLFlow, Elastic Stack, PyTorch, Keras, Tensorflow, SNPE, Jupyter, OpenCV, Pandas, Numpy, Singularity, Docker.

### SAMSUNG R&D (SIDIA SIDIA.COM) | MACHINE LEARNING ENGINEER Feb 2018 – Oct 2020

- Tech Lead of New Bussiness Team.
- Practical, highly-scalable, AI & Machine Learning pipelines for Image Classification, Face Recognition, Speech Recognition, Natural Language Processing and Reinforcement Learning.
- Distributed architectures with Kubernetes, ZeroMO and RabbitMO.
- CI/CD with Jenkins, Docker and Azure Pipelines.
- Edge AI on Raspberry-Pi, mobile phones and web servers.
- Development and testing of AT&T 5G router operating system.
- Stack: Keras, Tensorflow, Jupyter Notebooks, OpenCV, Pandas, Rasa, Spacy, Numpy, h5py.

### TRIAD SYSTEMS (ITRIAD.ORG.BR) | FULL-STACK WEB DEVELOPER Jan 2016 - Feb 2018

- Analysis, development and support of ALCATEL's ERP: GlobalTools.
- LAMP Stack Agile web development with PHP's Symfony, Django, Yii2, Angular 4, Bootstrap, Jquery, CSS3, HTML5.
- Project lead, architect and configuration management.

### UCI (UCI.CU) | SOFTWARE ENGINEER

Sept 2014 - Jan 2016

- Development, Test and Documentation of Cuban GNU distro: Nova.
- Analysis, Development and Testing of Cuban Android ROM: NovaDroid.
- Test Automation with Pytest. C++, Python, Linux shell scripting, Android.
- Development of Enterprise software solutions applied on health care used on Cuba's hospitals.
- Intelligent agents nets implemented with Java JADE Framework for Medical Diagnosis and Automatic Schedule Planning.
- Software Solutions for Medical Imaging (OpenCV, Django).
- Stack: ExtJs, HTML, CSS, Symfony (PHP), Django, Java JADE, Python.

### **COURSES & CERTIFICATIONS**

### CPA C++ CERTIFIED ASSOCIATE PROGRAMMER

verify.openedg.org Code: BQ3G.bYgY.TNf5 May 2022

### MACHINE LEARNING ENGINEER NANO-DEGREE

confirm.udacity.com/2FCEGTAE Dec 2019

# NATURAL LANGUAGE PROCESSING (NLP) WITH PYTHON NLTK

ude.my/UC-KXA0IKSD Feb 2018

#### **SCRUM DEVELOPER CERTIFIED**

SCRUMSTUDY: 671161 Nov 2018

#### AGILE TESTER (CTFL-AT)

BSTQB: 18-CTFL-AT-08341-BR(V.2014.BR) Feb 2019

### CERTIFIED TESTER FOUNDATION LEVEL (CTFL)

BSTQB: 18-CTFL-08070-BR(V.2011.BR) Nov 2018

### ENGLISH AS A FOREIGN LANGUAGE IN-STITUTIONAL TESTING PROGRAM

TOEFL: C1 527 ADVANCED

### **HONORS & AWARDS**

### **SECOND BEST PAPER**

Brasilian Symposium on Information Security sbseg2017.redes.unb.br/index.php/premios/Nov 2017

#### **PUBLICATIONS**

AUTOMATIC CLASSIFICATION OF PTERYGIUM-NON PTERYGIUM IMAGES USING DEEP LEARNING

AUTOMATIC CLASSIFICATION OF LIGHT FIELD SMEAR MICROSCOPY PATCHES USING CONVOLUTIONAL NEURAL NETWORKS FOR IDENTIFYING MYCOBACTERIUM TUBERCULOSIS

IMPROVING THE DETECTION OF
METAMORPHIC MALWARE THROUGH DATA
DEPENDENCY GRAPHS INDEXING

NEURO-FUZZY PROCEDURE WITH APPLICATION IN INFERENTIAL SENSOR