# Hernan Santiago Gonzalez Toral

# **Summary**

Data Science Engineer and a Full Stack developer with more than 6 years of experience in enterprise, web, and mobile software development. Currently enthusiastic and focused on big data science solutions and cognitive computing. Lead a team of an early stage startup that offers real-time data solutions.

# **Experience**

#### Data Science Engineer & Research Assistant at University of Cuenca

2014 to present

- Enriching Electronic Programming Guides using NLP techniques and semantic technologies
- Semantic Platform of Ecuadorian Researchers: discoverability of common research areas
- Publication, Exploitation and Discoverability of Bibliographic Resources and related content in the Linked Data Cloud

Full Stack Developer at Soft Warehouse S.A - Cloud Services - SimpleRide

2010 to present

- Development of a hybrid mobile application and a reactive backend platform for a community carpooling service
- ETL, reporting and development of web-based enterprise platform modules for fintech

## **Education**

MSc Web Science and Big Data Analytics from University College London

2015 - 2016

Thesis title: "Learning to Recommend using a Deep Reinforcement Agent"

 Recommender system using a Deep reinforcement learning agent based on the DDPG algorithm and a Factorization Machine policy model. Tested on the 100k Movielens dataset, it improved precision 8% average compared to a kNN-based policy

Other projects as a group leader

- CTR prediction experiment using a logistic regression model obtained a recall score of 0.72
- Collaborative filtering experimentation using different approaches (item similarity, popularity-based model and ranking factorization) over a sample dataset obtained from the MusicBrainz
- NLP tasks using language models and sentiment models
- Complex networks analysis for the Data Science Community Network: A Stack Exchange Study Case on Experts Users and Trending Topics

Bachelor degree in Systems Engineering from University of Cuenca

2006 - 2011

## **Technical Skills**

## Programming Languages/Markup

Java SE8/EE6, Scala, Javascript (ECMAScript 5/6), Python 2/3, C/C++, HTML5, CSS3, PL/SQL, T-SQL, SPARQL

Machine Learning / Data Science libraries and frameworks

Scikit-learn, Tensorflow, Seaborn, numpy, pandas, Hadoop, Spark, OpenAI gym, Stanford CoreNLP, NLTK, genism, R,

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**Data-related platforms** 

Pentaho Data Integration, JasperReports, Tableau, OpenNER, LODRefine, Silk, Protégé, Elastic Search, Kibana, Logstash, Apache Marmotta, Gephi, Jupyter Notebook, Apache Zeppelin

**Application Server Administration** 

Apache2, Jboss EAP 6.x, Jetty, Apache Tomcat, NGINX

CI/Deployment/Orchestration

Docker, Heroku, Kubernetes, Jenkins

Testing frameworks

JUnit, Karma, Protractor, Selenium, JBehave, Serenity

Other Frameworks

Bootstrap, jQuery, PrototypeJS, BackboneJS, UnderscoreJS, MustacheJS, Meteor, AngularJS, Angular 2/4, NodeJS, Bower, OpenLayerJS, Hibernate, D3js, Ionic2/3, Apache Cordova, Apache Kafka, Flask Microservices, Scrapy