Pamela **Carvallo**

MACHINE LEARNING ENGINEER · DATA ENGINEER · PHD

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Summary

In my last work experience, I worked as a full-stack senior data scientist, delivering a first-class shopping experience for travel sellers in the air industry. Together with putting in production data pipelines and machine learning models to the test, I led the data road-map towards impactful business contributions.

I have a strong creative and critical thinking, with a purpose of producing high impact on the industry. Proof of this, I have more than 8 years of experience designing and developing varied software projects ranging from Computer Vision and threat detection, to Big Data.

I have a "full-stack" mindset. Therefore I like putting things in production, as much as understanding how algorithms and latest research findings work. This mentality encourages a certain autonomy, but most importantly, an integral comprehension of the problem-solving process.

I have experience in cloud architecture and deployment using mainly AWS but am comfortable with all big players in the field. I feel comfortable coding in python and Spark/Scala.

I hold a PhD in Computer Science in Paris Saclay (Télécom SudParis), where I worked for 3 years on the domain of Machine learning, specifically on anomaly detection and clustering techniques (GHSOMs), insider threat in a cloud environment.

Work Experience

The Good AI (https://thegoodai.co)
FULL STACK ENGINEER - FREELANCE   *Paris, France*
                                                                  Aug 2020–now
- Design of data architecture for the platform
- Full-stack development of the platform
- Main stack: OVH, PHP, JavaScript, MySQL

Winglet.io (Station F)
FULL STACK SENIOR DATA SCIENTIST   *Paris, France*
                                                                  Dec 2018–Aug 2020
- Design and build big data pipelines in the cloud (>2To/day)
- Build Machine Learning data pipelines for data scientists
- Design and build smart cache criteria for trip prices volatility
- Design and analysis of pattern discovery in the air travel industry
- Manage the team of data engineers and data scientists
- Main stack: Amazon AWS, GCP, Ms Azure, Spark, ElasticSearch, Airflow, Docker, Databricks, Scala, Python, Databases, Tableau

Montimage
RESEARCH AND MACHINE LEARNING ENGINEER   *Paris, France*
                                                                  2016–2018
- Design of an anomaly detection framework for insider thread attacks in the cloud
- Monitoring and analysis of security metrics by means of guarantying cloud service client's requirements (H2020 Multi-cloud Security project)
- Main stack: AWS, OpenStack, Python, Scikit-Learn, Tensorflow, Docker, Flask, MongoDB

INRIA Chile
RESEARCH AND SOFTWARE ENGINEER   *Santiago, Chile*
                                                                  May 2012–Dec. 2015
- Industrial research and software development in projects related to applied research, focused on transferring research to the industry
- Areas of Computer Vision, HCI & visualization, and Big Data
- Scouting and management of technological projects, including market and IP assessment
- Main stack: Java, Play Framework, Ruby on Rails, D3.js, Angular, OpenCV, AWS, DBs

NIC Chile Research Labs
RESEARCH AND SOFTWARE ENGINEER   *Santiago, Chile*
                                                                  Jan. 2012–Dec. 2012
- DevOps of Project Adkintun, dedicated to measure at national-scale, the Internet's main QoS
- Provisioning and monitoring the metrics infrastructure
- Design and measurement of new QoS criteria
- Main stack: OpenWRT, MongoDB, RabbitMQ, Ruby on Rails

Education

Université Paris Saclay - Télécom SudParis
PH.D. IN COMPUTER SCIENCE   *Évry, France*
                                                                  2016 - 2018
- Thesis: "Security in the Cloud: An Anomaly-based Detection Framework for the Insider Threat", advised by Prof. Ana R. Cavalli

University of Santiago of Chile   *Santiago, Chile*

M.S. in Electronics and Telecommunications   *2010 - 2011*

- Thesis: "Packet Loss Distribution Analysis in UDP/IP End-to-End Links", advised by Prof. José Miguel Piquer in NIC Chile Research Labs network

University of Santiago of Chile   *Santiago, Chile*

Bachelor Engineer   *2004 - 2010*

- Specialization in Electronics and Telecommunications

Skills

Programming	Python, Scala, Java, Javascript, AngularJS, Ruby
DevOps	Amazon AWS, GCP, MS Azure, OpenStack, Docker, Bash scripting
Data Engineering	Apache Spark, Airflow, Databricks
Librairies	Scikit-learn, Tensorflow, D3.js, underscore.js, jQuery, OpenCV
Databases	MySQL, PostgreSQL, MongoDB
Tools	Git, ElasticSearch, Tableau, Grafana
Languages	English, French, Spanish

Projets, Publications & Formations

European Project H2020 Multi-Cloud Secure Applications (MUSA)   *France*

Colaborator   *2016 – 2018*

Pamela Carvallo, Ana R. Cavalli, and Natalia Kushik. In Proceedings of the 12th International Conference on Software Technologies. ICSOFT INSTICC, SciTePress, 2017.   *Spain*

First Author of: "Automatic derivation and validation of a cloud dataset for insider threat detection."   *2017*

Pamela Carvallo, Ana R. Cavalli, and Natalia Kushik. CRISIS Conference   *France*

First Author of: "A Study of Threat Detection Systems and Techniques in the Cloud."   *2017*

Pamela Carvallo, Ana R. Cavalli, and Wissam Mallouli. In Proceedings of the 11th International Adrei Ershov Informatics Conference PSI.   *Rusia*

First Author of: "A platform for security monitoring of multi- cloud application."   *2017*

Pamela Carvallo, Ana R. Cavalli, Wissam Mallouli, and Erkuden Rios. In Green, Pervasive, and Cloud Computing - 12th International Conference, GPC 2017, Cetara, Proceedings, pages 748–758   *Italy*

First Author of: "Multi-cloud applications security monitoring."   *2017*

Summer School - Machine Learning Summer School (MLSS)   *Argentine*

Poster presenter   *2018*

Summer School - Training And Research on Testing (TAROT)   *France*

Poster presenter   *2016*

Additional Information

Photography	Analogue, film development
Music	Guitar