Victor **Callejas Fuentes**

MACHINE LEARNING ENGINEER

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About Me

I am a last year student on a bachelor's of computer science at the Polytechnic University of Valencia.

Lover of new technologies and progress. I am passionate about continuous learning, I do so by participating in competitions on Kaggle and DrivenData where I can learn and apply state of the art techniques to real problems, doing online courses on platforms as Coursera, reading papers...

In my free time I like running, value investing and learn more about fields I am passionate about such as Machine Learning, Cloud Computing, and DevOps.

Experience

Tesla   *Data Scientist - Internship*
https://www.tesla.com/   *Nov.2021 - May. 2022 | Berlin, Germany*
- Developed computer vision models to detect quality defects during manufacturing

CERN - European Organization for Nuclear Research   *Infrastructure Architect - Internship*
https://atlas.cern/   *Feb.2021 - Aug. 2021 | Geneva, Switzerland*
- Trigger and Data Acquisition team at ATLAS experiment
- Research and test Kubernetes as an orchestrator for the Event Filter system of the ATLAS experiment
- Migrating current data flow services to a microservices architecture using technologies as Docker and Kubernetes

Hyperloop UPV   *Lead Software Engineer*
https://hyperloopupv.com/   *Sep. 2018 - Feb. 2020 | Valencia, Spain*
- Innovation award at the IV Hyperloop Pod Competition organized by SpaceX, which is one of the most demanding engineering competitions
- I led the development of the telemetry system, graphical user interface and middleware
- This work successfully passed all SpaceX tests required to compete and was the best among all the teams

ACM UPV - Association for Computing Machinery   *Organizing Member*
https://www.linkedin.com/company/acmupv/   *Sep. 2018 - Jan. 2021 | Valencia, Spain*
- I organized events, conferences and competitions in the field of computer science at my university
- I gave some workshops about Git and chatbots

Education

Formal education

Bachelor's on Computer Science   *Universidad Politécnica de Valencia - UPV*
https://www.upv.es/titulaciones/GII/indexi.html   *Sep. 2017 - May. 2022*

Google Cloud Professional Architect   *Google Cloud*
https://credential.net/e1c3fad3-3d25-45f8-b3ea-1a545e1d7772   *2019*

Cloud Computing with AWS   *Universidad Politécnica de Valencia - UPV*
https://grycap.upv.es/cursocloudaws/contenido.php   *2019*

Project Management   *By University of California Irvine on Coursera*
https://coursera.org/learn/project-management-basics   *2019*

Data Science Specialization   *By Johns Hopkins University on Coursera*
https://coursera.org/specializations/jhu-data-science   *Mar. 2018 - July. 2020*

Deep Learning Specialization   *By Standford and Deeplearning.ai on Coursera*
https://www.coursera.org/specializations/deep-learning
https://www.coursera.org/learn/machine-learning   *2020*
https://www.coursera.org/specializations/natural-language-processing

Deep Learning Course   *NYU Center for data Science*
https://atcold.github.io/pytorch-Deep-Learning/   *2021*

Specialization in Entrepreneurship   *Santander International Entrepreneurship Center*
https://explorerbyx.org   *Nov. 2017 - May. 2018*
- 380-hours entrepreneurship course following the lean startup methodology, with some of the best experts on the field

Honors & Awards

INTERNATIONAL

7th Position at Facebook Hateful Memes   *Facebook AI, NeurIPS Competition*
http://bit.ly/hateful-memes-lb   *May. 2020 - Oct. 2020*
- Competition overview: *https://ai.facebook.com/blog/hateful-memes-challenge-and-data-set/*
- Our solution had the 7th highest AUC and the 2nd highest ACC score among 3,173 participants
- My team solution: *GitHub*

Challenge Winner at Europe Junction Hackathon   *Junction - Helsinki, Finland*
https://bit.ly/junction-varian   *2019*
- My team and I won the healthcare challenge proposed by Varian Medical Systems, developing a graphical user interface during the course of the hackathon to coordinate the job of the medic and physician.

Local Winner at Space Apps Hackathon   *NASA*
https://bit.ly/noticia-upv-spaceapps   *2018*
- Local Second prize and Best Concept Mission.
- I developed a space assistant chatbot that answers questions related to space and informs about new space rocket launches. This bot also implemented a deepart feature to fusion a picture of your own with one of NASA Space Gallery.

UNIVERSITY

1st Prize at UPV Advent Of Code   *Universidad Politécnica de Valencia - ACM UPV*
                                                                                          2019
- Code competition at my university for second year students.

Ideas UPV Challenge   *Universidad Politécnica de Valencia - IDEAS UPV*
http://bit.ly/ideasV-ep   *2017, 2018, 2019*
- This is a university entrepreneurship contest where companies come and propose a challenge to be solve by student teams
- I won three editions of this competition.
- III edition (2017): I proposed a real time and dynamic system to control the semaphores, mainly by using computer vision to obtain the volume of cars in the roads thanks to cameras at the top of the semaphores.
- V edition (2018): My team and I proposed and make a demo about a non-instrusive way of measuring biomedical parameters in e-sports players through computer vision by using the webcam. With the colaboration of MAD LIONS E.C.
- VIII edition (2019): I developed a telephonic bot to automate real state visits for agents. I used IBM Watson and Twilio services.

1st Prize at the III UPV Datathon   *Universidad Politécnica de Valencia - DATA UPV*
                                                                                          2018
- I developed a machine learning model to predict pollution and pollen in the city of Valencia.

Publications & Conferences

Addressing the lack of pragmatic knowledge in multimodal models

NeurIPS Competition, Contributed talk

https://bit.ly/fb-hm-neurips2020-presentation

11th Dec. 2020

- After achieving one of the top solutions at the *Facebook Hateful Memes Challenge* my team and I was invited to explain our findings and methodology as a contributed talk for the challenge.

Skills

Languages

- Spanish native
- English fluent
- Catalan fluent

Research writing

LaTeX

Machine Learning

- Python (advanced), R (basic)
- PyTorch

Project Management

- Gantt, Agile, Kanban
- Innovation through Lean StartUp Methodology

General Programming

C++

Parallel Programming

- Python multiprocessing (advanced)
- MPI and OpenMP (basic)

Cloud Computing

Architecture with Amazon Web Services and Google Cloud Platform, Docker, Kubernetes

Web Development

HTML, CSS, Javascript, Typescript, Sockets, REST API, Node js, AngularJS, Angular

Others

Version Control System (Git), Robotics (Arduino, Raspberry), CLI (Unix), Chatbots (Dialogflow, IBM Watson), Databases (Relational SQL, MongoDB) ..