



# David Velasco García

davidvelascogarcia.web@gmail.com

Madrid, Spain

INDUSTRIAL ENG. ROBOTICS & AUTOMATION  
ENG. SOFTWARE ENG.



## ABOUT ME

Engineer with 6 years of professional experience.

He is a versatile polyglot engineer with a diverse combination of development experience in software and hardware areas. Qualified Industrial Engineer as well as Robotics and Automation Engineer by Madrid Carlos III University.

David has experience developing in C/C++ and Python programming languages as well as he has programmed in C#, Go, Java and Swift like multipurpose languages.

Also, he has worked with other specific languages like LD, SFC and MATLAB. He has knowledge of cloud-native systems, microservices, TCP/IP, UDP, QUIC, HTTP, ICMP protocols and system deployment in Docker and Kubernetes Clusters.

In a recent engagement he has been working as full stack profile like software designer implementing features for HAPS (High Altitude Pseudo-Satellite) platform like transmission methods in Kubernetes cluster, db connector service with REST and GraphQL APIs support, secure modules, system monitor service with ELK stack. Also, David has worked as well as QA Tester with UT/CT and FT. Deploying implemented solutions in Docker and Kubernetes R&D clusters as well in Capgemini Engineering platform.

In another engagement he has contributed to Ericsson in Deep Packet Inspection (DPI) department as software designer and CT/FT Tester developing custom solutions in 4G and 5G networks for EPG and PCG product.

David has worked as development engineer for robotics systems and process automation, developing solutions in fields like AI, Computer Vision, Speech Recognition, TTS, autonomous navigation and object manipulation with ML, DL and Reinforcement Learning techniques.

Working with CI/CD processes and tools like Git, GitLab, Jenkins, TravisCI, Gerrit, Jira, Grafana, Prometheus, Helm, Ansible, ArgoCD, Trivy, Istio, Maesh, Ingress, Elastic Stack. Applying agile methodology in deliveries work teams.

## SKILLS

Ability to work under pressure. Proactivity and creativity, adaptability to changing problems. Teamwork. Problem resolution. Management and decision making. Learning ability and motivation. Ability for leadership and time management.

## LANGUAGES

Attending to languages is composed by Spanish as mother tongue and C1 English Level certification obtained through Cambridge University, Dublin Trinity College and Menendez Pelayo University.

### **CERTIFICATE ESOL C1**

*Trinity College Dublin*

### **CERTIFICATE ESOL B2**

*University Of Cambridge*

### **CERTIFICATE ESOL B2**

*Menéndez Pelayo International University*

## PROFESSIONAL EXPERIENCE

July 2022 - Actual  
Madrid - Spain

### **CAPGEMINI ENGINEERING - ERICSSON**

*Software Engineer*

Develop as Software Engineer, as well as QA Tester in FT/CT tester custom solutions in 4G and 5G network in Ericsson in Deep Packet Inspection (DPI) area for EPG and PCG products. I have worked developing features based in protocols like IP, TCP, UDP, QUIC, HTTP, ICMP. Features have been implemented over agile methodology applying CI/CD processes in deliveries work teams.

March 2022 - July  
2022  
Madrid - Spain

### **CAPGEMINI ENGINEERING - R&D**

*Software Engineer*

Full Stack Software Engineer profile implementing features for HAPS (High Altitude Pseudo-Satellite) platform like transmission methods in Kubernetes cluster, db connector service with REST and GraphQL APIs support, secure modules, system monitor service with ELK stack (Logstash, Elasticsearch and Kibana). Also, as well as QA Tester with UT/CT and FT. Deploying implemented solutions in Docker and Kubernetes R&D clusters as well in Capgemini Engineering platform. Features have been implemented over agile methodology applying continuous integrations processes in deliveries work teams with GitLab environment.

April 2021 - March  
2022  
Madrid - Spain

### **CAPGEMINI ENGINEERING - ERICSSON**

*Software Engineer*

Develop as Software Engineer, as well as QA Tester in FT/CT tester custom solutions in 4G and 5G network in Ericsson in Deep Packet Inspection (DPI) area for EPG and PCG products. I have worked developing features based in protocols like IP, TCP, UDP, QUIC, HTTP, ICMP. Features have been implemented over agile methodology applying CI/CD processes in deliveries work teams.

December 2017 -  
October 2020  
Madrid - Spain

### **ROBOTICS LAB**

*Development Engineer*

Software Engineer. Implementation of solutions in assistance tasks to ERL, SciRoc, ONCE and Airbus. National and international projects managing TIAGo robotics system. Develop solutions in areas like Computer Vision, Speech Recognition, TTS, Autonomous Navigation, Manipulation of objects ... Software develop and QA tester in UT/CT and FT. Hardware design and implementation.

September 2017 -  
October 2019  
Madrid - Spain

### **ASROB**

*Technical Engineer*

Technician and operator in printing and 3D printers. Design and implementation of UAVs. ARCADE systems algorithm development engineer.

September 2016 -  
October 2017  
Madrid - Spain

### **UC3M SCIENCE PARK**

*R&D Engineer*

R&D Software Engineer. Implementation of solutions in assistance like Gesture Recognition Module for Robot Control in Assistance Tasks, research in Speech Recognition, Computer Vision, and robotics. QA tester in UT/CT and FT.

September 2012 -  
2016  
Madrid - Spain

### **FREELANCE**

*Web Designer*

Software Engineer. Frontend designer. Website design and maintenance.

## ACADEMIC DATA

2020 - 2021

Madrid - Spain

### MSC. D. ROBOTICS AND AUTOMATION

*Carlos III of Madrid University*

Thesis, Analysis of MATSim as a tool for the study of urban mobility:  
[https://www.researchgate.net/publication/358782575\\_Analysis\\_of\\_MATSim\\_as\\_a\\_tool\\_for\\_the\\_study\\_of\\_urban\\_mobility](https://www.researchgate.net/publication/358782575_Analysis_of_MATSim_as_a_tool_for_the_study_of_urban_mobility)

2018 - 2021

Madrid - Spain

### MSC. D. INDUSTRIAL ENGINEERING

*Carlos III of Madrid University*

Thesis, Design and Implementation of Solutions for Attention to People with the TIAGo Robot:  
[https://www.researchgate.net/publication/350467562\\_Design\\_and\\_implementation\\_of\\_solutions\\_for\\_caring\\_for\\_people\\_with\\_the\\_TIAGo\\_robot](https://www.researchgate.net/publication/350467562_Design_and_implementation_of_solutions_for_caring_for_people_with_the_TIAGo_robot)

2018 - 2019

Madrid - Spain

### INNOVATION AND ENTRENEURSHIP SPECIALIST (MBA)

*Scientific Park Carlos III of Madrid University*

2012 - 2018

Madrid - Spain

### B. D. INDUSTRIAL TECHNOLOGIES ENGINEERING

*Carlos III of Madrid University*

Intensification in Automation and Electronics. Obtaining the Entrepreneur Seal and Intensification. Finalist TFG Emprrende awards, Semifinalist Gran Canaria awards. Publication DRT4ALL 2017, International Congress on Technology and Accessibility.

Thesis, Gesture Recognition Module for Robot Control in Assistance Task:

[https://www.researchgate.net/publication/319902393\\_Gesture\\_recognition\\_module\\_for\\_robot\\_control\\_in\\_assistance\\_tasks](https://www.researchgate.net/publication/319902393_Gesture_recognition_module_for_robot_control_in_assistance_tasks)

## COMPETENCES

Attending to technologies had worked, remark focus on multipurpose programming languages like python, C, C++, C#, Java and Swift.

UT/CT/FT/ST knowledge working with frameworks like, unit testing, google test, selenium, locust, robot framework, sft, dpiregression.

Cloud-native knowledge with Docker, Kubernetes, and tools like Helm, Ingress, Istio, Maesh, Ansible, Trivy.

CI/CD tools like Git, GitHub, GitLab, Gerrit, Jenkins, Jira, Bitbucket, ArgoCD, Portainer, Rancher.

Data management, monitor and communication with Grafana, Prometheus, Logstash, Elasticsearch, Kibana, SQLite, Postgres, MariaDB, REST API, GraphQL API, TCP/IP, UDP, QUIC, HTTP protocols, YARP, ROS, Scapy and Wireshark to capture and traffic manipulation.

ML, DL and Reinforcement Learning tools and frameworks with tensorflow, keras, pytorch, sklearn, scipy, openCV, MLflow.

## PORTFOLIO

Some examples of public projects developed:

### Tensorflow Lite Detection

Multipurpose classifier detector implementation with support to network integration.

### Speech Recognition Transcriber

Implementation of video/audio multilanguage transcriber to PDF.

### Leap Motion Robot Controller

Gesture controller to robotics systems with support to network integration. **Video**

If you wish more public projects, please visit [@davidvelascogarcia](https://github.com/davidvelascogarcia) or <https://davidvelascogarcia.github.io/>.