# Cristián RAMÓN-CORTÉS VILARRODONA

# Ph.D. in Computer Architecture Computer Sciences Engineer Industrial Engineer

Birthdate: 19th October 1990

**Birthplace:** Barcelona, Catalonia, Spain



My areas of interest are Distributed Computing, High Performance Computing (HPC), and Big Data Analytics (BDA). At Dynatrace, I lead a team focused on processing and aggregating session data for real user monitoring, and developing the next generation storage for behavioural analysis. During my career at the Barcelona Supercomputing Center (BSC), I actively contributed to the design and development of programming models for distributed platforms, task-based workflows, dataflows, and streaming technologies. And yes, I love JVM-based languages!

## PERSONAL INFORMATION

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StackOverflow: stackoverflow.com/users/6018655/cristian-ramon-cortes

**ORCID:** orcid.org/0000-0003-4170-818X

# **EXPERIENCE**

#### Today October 2020

#### Team Lead, Product Owner, and Senior Software Engineer, DYNATRACE, Spain

- > Team Lead: Provide guidance to the group and conduct 1on1's, career plans, 360-feedback, and performance reviews
- > Product Owner: Define the product road-map for our component, maintain the backlog, agree priorities with stakeholders, and drive many agile meetings
- > Senior Software Engineer: My efforts are focused on processing and aggregating session data for real user monitoring, and developing the next generation storage for behavioural analysis

Java Python Bash Cassandra ElasticSearch Spark Jupyter Gradle IntelliJ

## October 2020 May 2017

#### Software Engineer, BARCELONA SUPERCOMPUTING CENTER (BSC), Spain

Software Engineer for the Workflows and Distributed Computing group (WDC) at the Barcelona Supercomputing Center (BSC) working in collaboration with the Computer Architecture Department (DAC - UPC). My main tasks were:

- > Orchestration of Data Science workflows
- > Automatic parallelisation of affine loops in Python
- > Integration with Container technologies (e.g., Docker, Singularity, Mesos)
- > Distributed execution of Hybrid Workflows composed of Task-based Workflows and Dataflows
- > Integration of Streaming Technologies (e.g., Kafka) inside COMPSs

Java Python Bash C++ Maven Eclipse IntelliJ

## May 2017 February 2016

#### Junior Developer, BARCELONA SUPERCOMPUTING CENTER (BSC), Spain

Junior Developer at the Workflows and Distributed Computing (WDC) group at the Barcelona Supercomputing Center (BSC). My main tasks were to enhance the infrastructure and deployment of COMPSs, and to design and implement several features inside its Runtime.

Java Python Bash Maven Eclipse Jenkins DEB packages RPM packages

## February 2016

## April 2014

#### Resident Student, Barcelona Supercomputing Center (BSC), Spain

Resident Student at the Grid Computing group at the Barcelona Supercomputing Center (BSC). My main tasks were to build a testing infrastructure for COMPSs and to re-design its Monitoring component.

Java Python Bash Maven Eclipse Jenkins ZK Framework Apache Tomcat

## December 2013 September 2011

## Teacher in a Student Advise Service, ACADEMIA SOL, Spain

Teacher of Bachelor and Master of Engineering students (ETSEIB, EUETIB, and FIB) at the Academia SOL. The goal was to provide academic review and reinforcement in a simpler and closer way than the university professors. Taught subjects: Heat Transfer, Mathematics, Theory of Computation, Informatics (1 and 2), and Programming 2.

Python C++ Bash Lazarus Public Speaking

# EDUCATION

#### 2020 Doctor of Philosophy (Ph.D.) in Computer Architecture.

Thesis Title: Programming models to support Data Science Workflows

Mark: Excellent Cum Laude

Computer Architecture Department (DAC) Universitat Politècnica de Catalunya (UPC)

#### 2017 Master of Science in Innovation and Research in Informatics (MIRI).

Specialised in High Performance Computing (HPC)

Universitat Politècnica de Catalunya (UPC)

#### Diploma in double Bachelor and Master of Engineering 2014

Centre de Formació Interdisciplinaria Superior (CFIS)

Universitat Politècnica de Catalunya (UPC)

#### Bachelor and Master of Engineering in Industrial Engineering 2014

Escola Tècnica Superior d'Enginyeria Industrial de Barcelona (ETSEIB)

Universitat Politècnica de Catalunya (UPC)

#### 2014 Bachelor and Master of Engineering in Computer Sciences

Facultat d'Informàtica de Barcelona (FIB) Universitat Politècnica de Catalunya (UPC)

#### Primary, Secondary, and General Education 2008

AULA Escola Europea

#### LANGUAGES



## STRENGTHS

- > Organised, methodical, and responsible
- > Perfectionist, demanding, and ambitious
- > Passionate, curious, and motivated
- > Ease of learning
- > Autonomous and teamwork
- > Management and communication skills

# PROGRAMMING LANGUAGES

