



Adrian Galera Egea

Curriculum Vitae

Keywords

Development, Python, Java, AWS, TDD, Android, IoT, Machine Learning, Multimedia

Experience

2017 - **Senior Backend Developer**, SENSEFIELDS, Barcelona.

Present Sensefields is a company that provide mobility solution services going from a Traffic Analytics Tool to a Vehicle Sharing service. As a Senior Backend Developer, my tasks have been:

Redesign and implementation of the Traffic Analytics Platform. The legacy platform was a Java based monolith that we have broken and turned up into a massively scalable Python serverless solution deployed on AWS using services such as: Lambda, ECS, Kinesis and DynamoDB. The new platform enable the company to perform analytics tasks easily over the Traffic information and to implement Machine Learning algorithms.

Development of an IoT sharing service. Providing an IoT platform to let our customers implement a vehicle sharing service. The platform is able to collect data from the hardware that powers the devices as well as to interconnect the customers with the vehicles through MQTT technology. The design focuses on deploy the service in the AWS Cloud.

Both services APIs were implemented using Swagger definitions, so that the implementation of Android Apps and Web UI were straightforward.

Implementation of a high performance messaging middleware to support additional use cases for the Traffic Analytics Platform. Its high performance is based on a Akka cluster and the usage of the Actor model.

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2013 - 2017 **Senior Java Developer**, NICEPEOPLEATWORK, Barcelona.

While I was working at Nicepeopleatwork I have:

Performed and improved ETL process developing a multi-model approach involving technologies such as: MySQL, Apache Kafka, Druid and custom based solutions. The developed large scale model allows the customer to store up to 6 months data (lots of TB) and define custom metrics with 0 effort

Design and implement a custom data warehouse service to develop Business Intelligence algorithms on top, such as fraudulent usage detection

Collaborated with the team to migrate the previous architecture to a micro services based solution

Led the plugin development team and developed solutions for several technologies such as: Android, Javascript, Roku Brightscript, Flash (AS3), C#. Performed customer in-house integrations in New York, Santa Clara, San Francisco, London and Paris

Developed a service to be used by the QA department in order to be able to perform very technical tasks such as: DNS masquerade, manage network latencies, vpns, etc ... through a very easy to use web interface running on a Raspberry Pi

2012-2013 **Research Developer**, UNIVERSITAT POLITÈCNICA DE CATALUNYA, Castelldefels.

Developer in e-health projects inside BAMPLA workgroup. As a member of the BAMPLA workgroup I have:

Collaborated to develop an IoT backend designed to receive events from multiple devices

Built several mobile applications (Android, PhoneGap) in order to populate the platform with e-health information, such as medication timings

Gathered information from a connected gymnasium through RFID devices and Bluetooth interfaces deployed on a Raspberry Pi

Built a cross platform streaming service using WebRTC and MotionJPEG compression technique

2008 - 2011 **Internship and Multimedia developer**, UPC-FUNDACIÓ I2CAT, Castelldefels.

Development of online transcoding system, high performance streaming and image processing

Evaluation of a telepresence system based on Set-Top-Boxes for medical environment

Technical Skills

Programming Languages **Python, Java, Android, Javascript, Scala, PHP.**

Unit testing **JUnit, Mockito, Unittest, Mocha, Jenkins.**

Devops **Grafana, Docker, Fabric, Boto3.**

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Cloud **AWS: API Gateway, CloudFront, Cognito, DynamoDB, EC2, ECS, Kinesis, Lambda, S3**
Google Cloud: Compute Engine, Compute Storage
DigitalOcean: Droplets.

Databases **MySQL/MariaDB, PostgreSQL, DynamoDB, Redis, MongoDB, Druid, Neo4J.**

Education

Official

- 2011 **Master Thesis: Benefits of batch provisioning in a PCE-based grid service interconnection network**, *Kungliga Tekniska Högskolan (KTH)*, Stockholm.
With honors
- 2009–2011 **Master of Science in Telecommunications Engineering and Management**, *Universitat Politècnica de Catalunya*, Castelldefels.
Average grade: 8
- 2009–2011 **Telecommunication engineering**, *Universitat Politècnica de Catalunya*, Castelldefels.
Average grade: 7.9
- 2005–2009 **Telecommunication technical engineering, specialized in Telematics**, *Universitat Politècnica de Catalunya*, Castelldefels.
Average grade: 7

Informal

- 2015 **Audio Signal Processing for Music Applications**, *Coursera*, <https://es.coursera.org/learn/audio-signal-processing>.
- 2014 **Machine learning**, *Coursera*, <https://es.coursera.org/learn/machine-learning>.
- 2013 **Functional programming principles in Scala**, *Coursera*, <https://es.coursera.org/learn/progfun1>.
- 2012 **Programming a robotic car**, *Udacity*, <https://www.udacity.com/course/cs373>.
- 2012 **Circuits and electronics**, *MITx*, <https://6002x.mitx.mit.edu/>.

Languages

Spanish	Native	
Catalan	Native	
English	Intermediate	Cambridge FCE

Interests

- Ski touring
- Running
- Electronic music
- Reading