



DANIEL BRUZUAL

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CV
NOV 2017

EDUCATION

MSc. Service Design and Engineering (GPA 4.91/5.00), 2015—2017

Aalto University - University of Trento. Joint Program organized by EIT Digital Master School
Minor: Innovation and Entrepreneurship
Thesis: Distributed Computing Framework Based on Software Containers for Heterogeneous Embedded Devices (Grade 5/5)

Computer Engineering (*cum laude*), 2007—2013

Universidad Simón Bolívar, Caracas, Venezuela
Specializations: Algorithm Design, Database System Development

WORK EXPERIENCE

Research Assistant. Aalto University. May 2017 – Present

Employing Docker and Docker Swarm for distributed computing on IoT devices. Researching how to automate Swarm setup, how to optimize Docker for resource-constrained devices and how to deploy IoT tasks as microservices (Docker, Docker Swarm, Fog Computing, Internet of Things)

Teaching Assistant. Aalto University. Sept 2017 – Present

Developed tools for automated grading of Android projects for the Mobile Cloud Computing course. Students upload their projects and receive immediate feedback (e.g., screenshots, logs, grade) based on unit tests. These tools enabled the course staff to offer the course for 120 students and save tens of hours of manual grading (Docker, Android, Appium, Unit Testing)

Freelance Developer. 2014 – 2015 (1 year)

Developed custom WordPress themes and plugins for several clients in different sectors (PHP, JavaScript, HTML, CSS)

Full-Stack and Mobile Developer. TuTallerMecánico. 2013 – 2014 (1 year)

Developed a search engine of car repair garages in Venezuela, including a web application and native Android application (Yii, JavaScript, MySQL & Redis, Java)

Android Developer. MobileMediaNetworks. 2013 – 2014 (1 year)

Developed an Android app for viewing augmented reality content in print publications, as well as a CMS to allow editors to set up the augmented reality experience and retrieve usage analytics. Several magazines and book editors used this system (CakePHP, MySQL, Java, Metaio SDK)

Recommendation Algorithms Intern. Plista GmbH. 2012 (6 months)

Developed algorithms to provide content recommendations that were displayed across several leading German online media outlets. Also developed tools for visualizing analytics, which were actively used by the upper management. (Collaborative Filtering)

TECHNICAL SKILLS

Programming languages

Proficient in Java and PHP. Developed several projects in Python, JavaScript and C. Familiar with different paradigms including functional languages

Server administration

Confident with command line tools and shell scripts. Comfortable with configuring Linux systems and web servers

Docker

Very good understanding of Docker internals and implementation details. Capable of building, deploying and debugging containers. Capable of deploying distributed applications based on micro-services

Databases

Good understanding of relational database systems and database design. Capable of designing indices, triggers, constraints and stored procedures. Experienced with MySQL, PostgreSQL and Redis (non-relational)

Mobile applications

Good understanding of Android development and mobile-cloud architectures. Have developed several Android applications. Currently learning to use Firebase for Android

APIs and Backend

Good understanding of REST and SOAP web services and best practices. Capable of designing modular systems based on Service-Oriented Architecture. Experience implementing web services in Node.js and Java

AWARDS & CONFERENCES

Speaker at DockerCon Europe 2017. Topic: Deploying Software Containers on Heterogeneous IoT Devices

1st Place. Junction (2016). IoT track. Helsinki, Finland

1st Place. Hacking for South Africa (2015). University of Trento

3rd Place. Metaio Got Heart challenge (2013). Android Augmented Reality app for citizen report of faulty public infrastructure

SOFT SKILLS

Proactive, team player, communicative, curious, motivated, receptive and good at public speaking

LANGUAGES

Spanish (native), English (TOEFL 116/120), German (B2), Italian (proficient) and Portuguese (proficient)

OTHER PROJECTS

Android Programming

Client for OCR recognition combining local and remote results
Geo-localized Augmented Reality app for reporting faulty city infrastructure
GoPro remote control widget (ProRemote)

Web Services and APIs

Multi-tier architecture for health tracking web service (*Java*)
Node.js server and API for managing and using remote virtual machines from the phone

Big Data

Mining historical car crash data for identifying causalities (*Apache Spark*)

Internet of Things

Drone Defense System that hacks incoming drones and flies them away (*Raspberry Pi, Python and ARP spoofing*).