994 route de Damoulens
40320, Bahus-Soubiran

+33 6 05 83 31 66

Skills

Proficiency

Backend	★★★★★
Formal Methods	★★★★☆
Performance	★★★☆☆
Frontend	★★☆☆☆

Programming

Java

JavaScript

C • C++

BASH

SQL • MDX

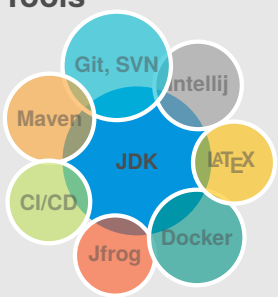
Frameworks

Spring Cloud Sleuth	★★★★☆
Spring Boot	★★★★☆
React/Next.js	★★★☆☆

Cloud Services

AWS - S3	★★★★☆
Azure	★★★☆☆
GCP	★★☆☆☆

Tools



MahieddineDellabani

Technical Lead

About Me

Technical Lead with strong technical skills. Autonomous, self-motivated and curious, but mostly not afraid of new challenges and eager to learn new technologies. Open minded, sociable and used to work in a multicultural collaborative environment. As an engineering manager, I strive at making a great product for both users and developers : Foster innovation, promote best practice and ensure engineers' happiness.

Experience

06/19 - Now **Technical Lead** — ActiveViam, Remote, France

As part of the R&D team, I design and build Atoti, the in-memory real-time analytical database. Duties:

- Product Developement: Design, build, test and deploy of Atoti Java API capabilities: Aggregation engine, real-time updates, distributed computing, MDX querying
- Monitoring: Involved in enhancements and imlementations of Atoti Application Performance Monitoring stack: Tracing, metrics and logs. **Stack:** *Zipkin, Logstash, Grafana, Prometheus, Docker.*
- Support : Solving performance issues and help the clients using the APIs
- Internship and university project supervisor : Maximise the impact of new JDK capabilities in Atoti Java API LOOM and Panama)

Keywords: *In-Memory, Distributed System, Monitoring, REST, MDX, OLAP*.

09/18 - 06/19 **R&D Software Engineer** — INGIMA LABs, Paris, France

Responsible of R&D studies, proof of concepts development and their industrialization for clients and partners. Duties:

- State of the art and literature research
- Projects roadmap and clients meetings
- Architecture, development, testing and documentation

Projects:

- PackDiff: Extraction and comparison of PDFs text and graphical elements using different algorithms (Smith-Waterman/Needleman-Wunsh for text comparison and Hungarian algorithm for computing the best matches). The project was implemented as micro-services using spring-boot framework.
- OCR prototype for a client specialized in insurance brokerage and advice.

10/14 - 07/18 **Full Time Researcher (PhD)** — Verimag Laboratory, Grenoble, France

Formal Methods for Distributed Real-Time Applications.

Study and develop rigorous system design methodologies for Distributed Real-Time applications. These methods should be implemented through intermediate model transformation ensuring correctness, until reaching a concrete implementation.

Keywords: *Distributed Real-Time Systems, Formal Methods, Timed Automata, Verification, Communication Delays, Clock Drift.*

03/14 - 08/14 **Final Engineering Project** — SAP SE, Walldorf, Germany

Vectorization of compression algorithms using SIMD instructions:

- Leverage Intel new set of instructions (SSE4, AVX2) for high performance and optimization purposes
- Compression algorithms like Simple8/9 and Golum
- SAP HANA database concept
- Literature Research

Soft Skills

Languages

English	★★★★★
French	★★★★★
Arabic	★★★★★
Spanish	★★☆☆☆
German	★☆☆☆☆

12/13 - 03/14 **Internship** Transportation Research Center, University of Nevada, Las Vegas, USA
Business Intelligence Project for the Nevada Department Of Transportation:
- Dimensional modeling and Data warehouse conception
- Data integration, PL SQL

Education

03/2019 **Machine Learning by Stanford University on Coursera.**
Certificate earned at Wednesday, March 20, 2019 3:09 PM GMT (Link **here***)*

2013 - 2014 **Exchange Student in Computer Engineering** Iowa State University, Iowa, USA
Main subjects: Advanced Computer Architecture, Reconfigurable Systems, Distributed Software Development.
GPA: 3.89.

2011 - 2014 **Engineering Diploma** Grenoble INP PHELMA/ENSIMAG, France
Specialization: Embedded Software and Systems.
Main subjects: Mathematics, Programming, Operational Research, Operating Systems, Real-Time Embedded Systems, Hardware Design.
Thesis: "Vectorization of compression algorithms using SIMD instructions".
Realtors: Prof. S. Viardot, Ing. R. Schulze, Dr. T. Willhalm.
Thesis activity carried out during the final year project at SAP SE.

2008 - 2011 **First Scientific University Cycle Degree** ENPEI, Algiers, Algeria
Engineering Scientific Preparatory School.
Main subjects: Mathematics, Physics, Computer Science.

Projects

12/2013 **Reconfigurable System Project** Iowa State University, Iowa, USA
Working in pairs on the conception of an old school game (bricks) on a SPARTAN-3E FPGA: *Hardware Design, Keyboard and VGA Modules, Algorithmic, Vhdl*

06/2013 **Operating System - Project Manager & Developer** Grenoble INP ENSIMAG, Grenoble, France
Development of a Linux type operating system (C language):
- Virtual Memory, Processes Communication (Shared Pages, Message queues)
- User/Kernel Separation (ring 0 & ring 3)
- Keyboard & Mouse Drivers and multi-shell

01/2013 **Software Engineering Project** Grenoble INP ENSIMAG, Grenoble, France
4 persons team working on the implementation of a mini-java compiler: *Compilation Theory, Formal Language Theory, ADA & Assembly*

Summer Schools

03/2015 **Engineering Autonomic Systems (ASCENS Project)** IMT, Lucca, Italy
theoretical, practical, and technological issues related to collective self-aware autonomic systems - so-called ensembles.

09/2017 **Mixed Criticality System (DREAMS Project)** UPV, Valencia, Spain
Keynotes, tutorials and hands-on session delivered by academic and industry experts about advances in MCS.

Publications

M. Dellabani, J. Combaz, S. Bensalem, M. Bozga
Local Planning Semantics : a Semantics for Distributed Real-Time Systems
Leibniz Transactions on Embedded Systems, Vol 6, No 1, 2019

B.L. Mediouni, A. Nouri, M. Bozga, J. Combaz, A. Legay, S. Bensalem, M. Dellabani
SBIP 2.0: Statistical Model Checking Stochastic Real-Time Systems
Automated Technology for Verification and Analysis - 16th International Symposium (ATVA 2018), Los Angeles,October 7-10, 2018

M. Dellabani, J. Combaz, S. Bensalem, M. Bozga
Knowledge Based Optimization for Distributed Real-Time Systems
Proceedings of the 24th IEEE Asia-Pacific Software Engineering Conference (APSEC 2017), Nanjing, China, December 4-8, 2017

M. Dellabani, J. Combaz, S. Bensalem, M. Bozga
Local Planning of Multiparty Interactions with Bounded Horizons
Proceedings of the 21st International Symposium of Formal Methods (FM 2016), Limassol, Cyprus, November 9-11, 2016