# Curriculum Vitae | Nacer DERGAL

# **& Personal**

#### **Contact & Social**

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# **▶** Professional Experience

# **Software Developer**

## From: 09/2018 until Present

路 EXFO - Onsite at Quebec, Canada 🖪

#### Description

- Work in a SCRUM environment
- Software development in C# on a Linux based embedded system using the Mono Framework
- Software development in .NET Compact Framework.
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- Conception of a Test API using Graph Theory to be easily able to go through each path/scenario of an application with automated tests.
- Conception of an Image Recognition framework combined with the Test API to test our GUI.
- Conception of a driver for an Optical Channel Monitor.
- Design and conception of an Android-like Notification service in C#.

## System integration/ DevOps engineer co-worker

## From: 09/2015 until 09/2018

🐸 IGN - Onsite at Champs-Sur-Marne, France 💵

#### Description

- Implementation and administration of a virtualized software forge on Docker
- Automation of project creation



- Implementation of web application
- Website creation
- Deployment of a secured Docker Registry
- Creation of a Restful API from a database describing a road network with its traffic topology

### **Education**

## **Master of Science in Computer Science and Network**

- **Diplomed** in 09/2018
- 🛱 Started in 09/2015
- **m** ESIPE

## **Bachelor of Science in Computer Science**

- **Diplomed in 08/2017**
- 🛱 Started in 12/2017
- **1** University of Sherbrooke

# **Bachelor of Science in Electrical and Industrial Computing**

- **Diplomed** in 09/2015
- 🛨 Started in 09/2011
- m UPEC

# Skills

#### **Programming skills**



Data Mining, Functional Programming, Object Oriented Programming, Operating System, GUI, Design Pattern, Concurrent programming, Open stack, Distributed Computing, Network, Management, REST/SOAP/gRPC/GraphQL

#### **Programming Languages**



Java 13/Android/Spring/Swing, Ruby (Rails), C/++/#, Python, JS/TS, Go, PHP, Assembler, Bash, Racket, HTML5/CSS3

#### CI/CD



Jenkins, Maven, Ant, SonarQube, Gitlab, TFS, JUnit, Mockito

#### **Database**



Postgresql, MongoDB, MariaDB, Cassandra, Redis, SQLite, MySQL

#### Network



Protocols, LANs/WANs/WLANs, Wireless, Cellular, Cyber security, Routing, Cryptography/Certificate

#### **Virtualization**



Docker compose/swarm, Virtual machine (Virtualbox/VMware), Kubernetes, Rancher Cattle, AWS, S3

#### Web server



Nginx, Apache, Tomcat, Vertx, Unicorn

#### Load balancing / Proxy



Haproxy, Squid

## **Projects**

#### Ordogene

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#### Description



Ordogene is a software that can be used to determine, using a genetic algorithm, the actions of a given process to maximize or minimize some resources in a minimum amount of time. These processes can be very different, such as getting ready in the morning, organizing an event or manufacturing industrial parts.

#### **PapayaDB**

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#### Description



A self-optimized document-oriented database storing a set of value in JSON format. The project was divided in several parts implanting the database itself (with atomic document insertion), a Web server (REST) to make queries (the queries are themselves JSON documents) and a client API in Java to make requests to the REST server (a request result had to be a Java Stream). Each module must be separate and independent. It had to be delivered as modular JARs (compatible with Java9 modules).