Emmanuel Breton-Belz
Seeking challenging developper position

WORK EXPERIENCE

JULY 2017 – PRESENT

Artal Technologies, Toulouse
Full stack Eclipse RCP Development

Software development for Airbus model simulation process: Creation of front-end components using Nebula Nattables and Sirius Plugin for instance. Participation in the migration from CDO to Hibernate persistence framework. Creation and optimization of JPA queries to retrieve data in back-end. Strong knowledge in modular development.

NOVEMBER 2016 – APRIL 2017

Bosch, Abstatt
Full stack Eclipse RCP Development

Software development for automotive controller management and design: Front-end using JFace wizards to retrieve users need and persistence using SAX/DOM. Advanced version system of XSD schema using Eclipse built in features.

MAY – JULY 2015

DIEM, Salerno
Object detection Creation of object recognition using SURF feature detector with OpenCV. Programming in C++, and dealing with image loading, processing, feature extraction and feature enhancement for research purposes.

SCHOLAR EXPERIENCE

JUNE 2016

UNISA, Salerno
Vision cup Competition for artificial vision course. Teams of three building software guiding Nao robot through a visually marked path and classify objects along the path.

2015

ENSICAEN, Caen - UNISA, Salerno
Image analysis
Theory and practice of image analysis, 3D representation, shape and objects segmentation and classification. Labs using video games development support.

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EDUCATION

2015 – 2017	**Master's degree**	COMPUTER SCIENCES *UNISA Ingeneria, Salerno*
2013 – 2017	**Engineer diploma**	INFORMATICS, IMAGE *ENSICAEN, Caen*
2011 – 2013	**Technical degree**	INFORMATICS, IMAGE *IUT, Caen*

COMMUNICATION SKILLS

FRENCH	Native speaker
ENGLISH	820 points TOIEC, fluent
ITALIAN	Fluent

SOFTWARE SKILLS

PROFESSIONAL	Java 8, Eclipse RCP3
GOOD LEVEL	C++/C, SQL, Oracle, git, subversion, Jira, JUnit
INTERMEDIATE	Python, LaTeX, PHP, JS, HTML, CSS, OpenCV, DL4J, J2EE, C#, Matlab, Jenkins
BASIC LEVEL	NodeJS, React.js, Unity

HOBBIES

READING	Deep learning: A practitioner approach
INTERESTS	Nutrition, neuro-science, body kinetic, permaculture
SPORTS	Triathlon, trail, handball

Software details

Java

A year and a half
Professional experience

Using Java 8 at work for one year and a half. Knowledge in Maven project compilation, threads synchronization and analysis with JVisualVM, advanced OOP and data-binding. Modular programming using OSGi platform for complex systems development with Eclipse RCP. 3 month project of spaceship game for Scrum team development labs. Following Java user group meetups about Java and Kotlin.

C/C++

3 month
Scholar and internship experience

Embedded development of automated barrier opening using proximity sensors and NFC with STM32F3 at UNISA. Embedded development using Raspberry pi at UNISA, PIC18 with 8bit processor constraints at ENSICAEN. 2 month C++ development during DIEM lab internship Advanced courses at Ensicaen with C++ 11 with preference for clang compiler. Labs using QtCreator for Qt development at Ensicaen. Advanced linux process, threads, semaphores and memory management. Competition lab for shortest path algorithm programming on simulated car circuit at ENSICAEN.

Persistence

A year and a half
Professional experience

Use of Sax/Dom in Java during internship at Bosch with XSD versioning. Use of Hibernate with emf/jpa binding for metamodel persistence. Debug and optimisation of SQLQueries on H2 with high dependency constraints on metamorphism. Intense use of Oracle during technical degree with Oracle SGBD on Tour de France database server. Use of MySQL for php labs, postgreSQL for project labs at ENSICAEN, SQLite for Technical degree final project.

Web development

Labs
Scholar experience

Php/HTML/CSS labs in technical degree. J2EE labs and e-commerce like website development to use servlet mapping, cookies and logging. Ajax lists development during labs. Simple personal website using npm react.js's bootstrap. SSL certification using Certbot on raspbian.

Script languages

Labs
Scholar experience

Python:
Blender script development for random tree trunk and branches modeling. AI lab serious game development solving Packman levels. OpenCV labs in Salerno using python for image analysis.

Matlab:
Robotic labs using matlab and simulink for kinetic computation with VRep for 3D representation. Data mining labs at ENSICAEN for dataset principal component analysis and neural networks development and training. Source and channel codification and compression labs at UNISA developing different algorithms with Soft and Hard coding.

JavaScript:
Compilation and test of OpenCV.js with emscripten for Web integration of OpenCV. Labs using JS scripts and functions inside HTML. Hosted at home Node.js personal website.

Image analysis and synthesis

Labs
Scholar experience

Plane images enhancement at UNISA Lab using high resolution with low spectral range and low resolution with high spectral range images fusion. Image analysis using OpenCV and Greyc Pandore toolkit at ENSICAEN. OpenCL game development at ENSICAEN Lab.
Unity CSharp serious game development to promote Virtual reality at ENSICAEN using Oculus rift. 2 month development of objects on image detection using SWIFT feature extraction. Personal project of face recognition using OpenCV with java.

Data science

Project and Labs
Scholar and personal experience

Homemade cascade classifier using K-means algorithm to detect objects from Nao camera images. Neural network development for machine learning lab at ENSICAEN during data mining courses. Training using various handmade simple feature extraction and data sets: github.com/manumanmax/Nao.
Following Toulouse Data Science (TDS) meetups about Blockchains and Keras Tensorflow module.