J-M **Cadic**

COMPUTER SCIENTIST · AI ARCHITECT

2-1-2 Tsukuda, Rivercity East Towers 2, Chuo-ku, Tokyo 104-0051, Japan.

jeanmaximilien.cadic@protonmail.ch | JeanMaximilienCadic | jmcadic

Experience

9DWLAB — *Tokyo, Japan*

Co-founder & Chief Operating Officer — *Dec. 2018 - Present*

- Architect of IYO, A Smart Peer-to-Peer Distributed Intelligence - (PATENT IN PROGRESS)
- Design and implement business strategies, plans and procedures.
- Establish policies that promote company vision and mission.
- Product design and negociation with the clients.

9DW — *Tokyo, Japan*

Chief Artificial Intelligence Officer — *April. 2017 - Present*

- Apply machine learning and AI methods into client work spanning a range of use cases including exploratory insights, predictive modeling reporting, and optimization.
- Develop innovative solutions for client work built into standardized methods.
- Supervision of 15 engineers (project management, axis of research, code review...).

9DW — *Tokyo, Japan*

Principal AI engineer — *Feb. 2016 - Present*

- Speech recognition system developer, data analyst and model architect.
- Earthquake prediction based on EMD/IMF and LSTM neural network.
- Development of patented solution for the generation of dental mesh.
- Brain anomaly detection based on KL divergence using VAE.
- Building reconstruction based on genetic algorithms.
- Setup of server Linux and services AWS/GCP/AZURE.

WASEDA UNIVERSITY — *Tokyo, Japan*

Research Assistant / Data Analyst — *Oct. 2015 - Mar. 2017*

- Matlab developer using NARX (nonlinear autoregressive with exogenous input) for causality detection.
- Signal processing and causality quantification from CMS using Matlab Neural Nets toolbox.
- Improvement of pre-processing methods for causality detection using KNN/FKNN.

TOKYO UNIVERSITY OF AGRICULTURE AND TECHNOLOGY — *Tokyo, Japan*

Research Assistant / AI Architect — *Oct. 2015 - Feb. 2016*

- Software architect of a new hybrid architecture HREP-3 for multi-modal analysis of interaction in HRI.
- Software development in C# for head tracking with KinectV2 from Microsoft.
- Android developer for an application of data visualization under Unity3D in C#.
- Unity3D interactive game «Magic Trick» using Pepper from Aldebaran Robotics.
- Modules developed: NLP (ALICE - Java), Vision (Anaconda -Python), Multi-threading for Client/Server (Python).

ISIR/CNRS — *Paris, France*

Reasearch Intern / Data Analyst — *Jun. 2014 - Nov. 2014*

- Developer C++ of OpenSmile for large-scale feature extractor from multimedia files.
- SVM technique used for detection of social commitment with voice signal in the first universe age with 75 % accuracy.
- Cluster of computers for data analysis.

LIP6/CNRS — *Paris, France*

Reasearch Intern / Software Developer — *Jan. 2014 - May. 2014*

- Developer of WEKA OpenSource library for Data Mining in JAVA.
- Development and integration of semi-supervised module.
- Proposal and optimization for cluster detection.
- Contribution for cluster detection with linear complexity O(n) in time and memory.

LIRMM/CNRS/EUROMOV — *Montpellier, France*

Reasearch Intern / Robot Vision — *Jun. 2013 - Sept. 2013*

- Developer C++ of tracking system with OpenCV on mobile robots.
- Creation of detailed test plans and test cases.
- Test and demonstration for EUROMOV (European Center for Research on Human Movement) inauguration.

Education

PhD. candidate in Artificial Intelligence and Robotics — *Tokyo, Japan*
Tokyo University of Agriculture and Technology — *Sept. 2015 - Sept. 2016*

M.Sc. in Artificial Intelligence — *Paris, France*
Sorbonne University / Telecom ParisTech — *Sept. 2013 - Sept. 2015*

B.S. in Mathematics — *Montpellier, France*
UM2, (University Montpellier 2) — *Sept. 2010 - Sept. 2013*

B.A. in Anthropology and Sociology — *Montpellier, France*
UM3, (University Montpellier 3) — *Sept. 2010 - Sept. 2013*

Grants

Scolarship French Ministry of Higher Education and Research for mobility to Japan. — *Feb. – Aug. 2015*

Publications

White Paper	**IYO: A Smart Peer-to-Peer Distributed Intelligence** J-M. Cadic	*Dec. 2019*
Journ.	**The emotional component of Infant Directed-Speech: a cross-cultural study using machine learning, Neuropsychiatrie de l'enfance et de l'adolescence, Elsevier** J-M. Cadic	*Oct. 2019*
Rev.	**Imaginary and Artificial Intelligence through a transversal approach** J-M. Cadic, Societes N 131	*Jan. 2016*
Journ.	**Towards an affordable mobile analysis platform for pathological walking assessment.** V.Bonnet, C. Azevedo Coste, L. Lapierre, J-M. Cadic, P. Fraisse, R. Zapata and C.Geny, Robotics and Autonomous Systems, Volume 66, Pages 116-128	*Apr. 2015*
Conf.	**The universality of motherese prosodic characteristics.** Erika Parlato, Catherine Saint-Georges, M. Chetouani, J-M. Cadic, Conference, 3 IPC in RIO, Domain Specificity in Language Acquisition & Processing	*Apr. 2015*

Patents

JP	**A RECOMMENDATION SYSTEM FOR COMPOSITE ASSEMBLING PROBLEMS** J-M. Cadic	*Ongoing*
JP	**8048. (WO2018230303) THREE-DIMENSIONAL PROSTHESIS MODEL GENERATING DEVICE, PROSTHESIS FABRICATION SYSTEM, THREE-DIMENSIONAL PROSTHESIS MODEL GENERATING METHOD, AND THREE-DIMENSIONAL PROSTHESIS MODEL GENERATING PROGRAM** J-M. Cadic	*Oct. 2019*

Languages

French	Native Speaker
English	Professional proficiency
Spanish	Conversant
Japanese	Basic