# Sebastien Campion

R&D Managing Partner

#### contact

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#### languages

french mother tongue english & spanish

#### skills

Solution/Technical
Architect, Leading
people, Building
high-performing teams,
Manage multiple client
priorities
simultaneously,
Implement proof of
concept, Scientific
Computing &
Algorithms,
Machine/Deep
Learning.

## **experience**

2019 - now **PricewaterhouseCoopers** / Advisory 2700 employees

Luxembourg, Luxembourg

## Project Manager & Data Al Architect at Directorate-General for Taxation and Customs Union for European Commission.

Manage, design and implement a complete data science pilot platform dedicated to large scale real-time analysis for European Commission / Taxation and Customs Union Department.

- Analysis, comprehension, and technical translation of operational needs.
- Tailored integration of a self-service solution enabling cross-functional organizational model and data governance guarantee.
- Hybrid architecture between free and open-source software and proprietary software to preserve IT sovereignty with horizontal scaling capability.
- Use case implementations on machine and deep learning projects for geocoding prediction and a large-scale similarity search engine.
- Manage and support end-users training.

| Machine Learning | Container orchestration Kubernetes | Data Virtualization | Continuous Delivery |

2017 - 2019 INRIA / French Academic Research Institute 2500 employees

Rennes, France

#### Research engineer in Cybersecurity.

Research topics were ransomware detection, malware analysis using machine learning techniques, and cryptographic protocols (Signal).

- Contributing to scientific experimentations.
- Design infrastructures and software.
- Requirements analysis and bootstrap projects.
- Establishing roadmap.
- Supervising projects and team-leading.
- Recruiting.

| Concolic | ANGR | Call graph | Double Ratchet | Diffie-Hellman |

#### Technical director for high security laboratory.

| DMZ Infra | Cisco ASA | Docker cluster | Jupyter | GPU |

2015-2017 **Mediego / Startup** 

Rennes, France

#### Co-Founder and CTO

The solution developed enables to compute efficient and fast recommendations for emailing based on the user's web navigation.

- Product manager. - Pre-sales client analysis.

- Team leading. - Proof of concept.

- Market study. - Support.

| Machine Learning | ANN | Kafka | Cassandra | Mongo | Java |

#### Research engineer for efficient exploration and indexing in very large multimedia databases.

- Contributing to scientific experimentations
- Managing our platform for indexing multimedia contents
- Coarse-grain distributed computing
- Developing and improving scientific prototypes
- Elaborating corpora / ground-truth for experimentation's evaluations
- Publishing demo and online web services

| Machine Learning | Large scale | ANN | CBIR | Computer Vision | NLP | Python | Redis | Scikit-Learn |

#### Technical director for INRIA forge

14 000 users | 4 300 projects |

2002-2007 **Orange Labs** / France Telecom R&D 130 000 employees

Rennes, France

#### Junior Project Manager for TV/VOD metadata management networks.

- Project on metadata aggregation service for multimedia contents distributed on Orange's networks (IP, ADSL, Mobile)
- Mobile TV project: specification and development of an electronic service guide for mobile terminals through an experimentation handled to DVB-H (Digital Video Broadcasting standard).
- Development of TV/VOD portal access by Orange ADSL TV Set Top Boxes.

#### 2001 Thomson Grass Valley

Rennes, France

Internship (3 months)

Development of a web monitoring tool which centralize logs generated by various MPEG2 audiovisual appliances (gateway, encoder, multiplexer, decoder, ...)

## consulting & teaches

- · Expert for the claiming of research tax credit (CIR) by the French Ministry of Higher Education and Research
- Expert trainer in software development for lawyers at IEEPI http://bit.ly/ieepi-scampion
- Lesson on open source development and Research Master degree Research http://scampion.github.io/devoss
- Practical work for "Multimedia Machine Learning Tutorials" Master degree https://github.com/scampion/multimedia-machine-learning-tutorials

### education

1999–2002 Master's degree in Engineering of Computer Science and Telecommunications ESIR, University of Rennes 1, France

Specialization in language and computer system.

1997–1999 **DEUG (two-year university degree)** Physics and Chemistry University of Rouen,

Specialization in computer science

## **publications**

- Aug 2020 **Multi-Device for Signal** Applied Cryptography and Network Security, Roma, Italy **Keywords:** cryptography, secure instant messaging, ratchet, multi-device
- Sep 2014 Audio thumbnails for spoken content without transcription based on a maximum motif coverage criterion Annual Conference of the International Speech Communication Association, , Singapour, Singapore.

**Keywords:** : spoken content processing, audio mining, motif discovery, summarization, thumbnailing.

Aug 2013 **MODIS: an audio motif discovery software. Show and Tell** Interspeech 2013, Lyon, France.

**Keywords:** : word discovery software, pattern matching, unsupervised learning, dynamic programming .

- Oct 2012 Efficient Mining of Repetitions in Large-Scale TV Streams with Product Quantization Hashing.

  ECCV, Firenze, Italy.

  Keywords: : large scale, product quantization hashing .
- Jun 2012 **Texmix: an automatically generated news navigation portal** ICMR ACM, Hong-Kong, China.

**Keywords:** : HTML5, hypervideo, topic segmentation, speech to text, named entities, similar images, dynamic resume, geotagging.

- Oct 2010 AVSST- an Automatic Video Stream Structuring Tool NEM Summit, Barcelona, Spain Keywords: TV Stream, Indexing, Structuring, Repetition detection, Classification, EPG, metadata, DTW
- April 2007 Service Platform for Converged Interactive Broadband Broadcast and Cellular Wireless

  IEEE Transactions on Broadcasting
  Keywords: : Multimedia, Digital video broadcasting, Multimedia systems, Cellular networks, Content management.

## patents

- Sep 2004 Procédé d'enregistrement thématique de contenus numériques à diffusion programmée fr 0300882
- Sep 2004 Procédé d'enregistrement, avec mise à jour, de contenus numériques à diffusion programmée