

Julien Diener

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Date of birth: 07 october 1982

Skills

Leadership

- Project conception
- Agile methods
- Proficient communicator
- Collaborative design
- Junior mentoring
- Public speaking

Tech

- Hadoop stack
- Apache Spark
- Apache Kafka
- Docker
- CI tools
- AWS
- MySQL

Languages

- Scala
- Python
- Java
- C++
- Javascript
- CSS
- php

Analytics

- Financial analytics
- Data analysis
- Statistics & clustering
- Graph theory
- Computer vision
- FEM
- GPU

Education

Ph.D. in Computer Science

With mention "Excellent à exceptionnel"

2005 to 2008

Ensimag and **INRIA**, Grenoble

Master 2 in Computer Graphics

Obtained a state financed Ph.D

2004 to 2005

Ensimag, Grenoble

B.Sc in Math with Computer Science

With honors of the first class

2000 to 2004

Heriot-Watt University, Edinburgh

Work History

Big Data architect and IT-quant, The-ICA

June 2015 - current, Paris

Being one of the original IT of the ICA start up, I participated to all development steps of our products. We develop big-compute technologies and BI for financial risk analysis. We thus use all the new cloud tech that can help us leverage some very high computing and distributed data challenges.

- Lead Big Data architect
- Multi-cloud computational workflow
- Agile methods
- Derivative product and financial risk metrics
- Interactive financial BI with fast incremental re-computation

Engineer at Zenith team, INRIA

October 2014 - May 2015, Montpellier

XData project:

- Collaborative project between industrials, startups, and academics
- Automated web service for integration of geospatial heterogeneous data
- Web application on cloud using a hadoop+spark+hive stack

Sifr project:

- Ontology-based web-services to leverage biomedical ontologies
- Cross access to NCBO ontology annotators

Postdoc at Virtual Plants team, INRIA

Sept. 2011 - Sept. 2014, Montpellier

Development of high-throughput images processing platform and algorithm to extract the architecture of growing root system.

- Graph theory: multiscale, dynamical
- Image processing
- Collaborative software integration tool and UI (OpenAlea)
- Development of an international file format (RSML - <http://rootssystemml.github.io>)
- <http://github.com/openalea-incubator/rhizoscan>

Teaching assistant, Université de Nice

Sept. 2010 - August 2011, Nice

Measurement tool of paramecium ciliary beating from video

- Interdisciplinary collaboration with Biologist
- Signal processing, computer vision and UI

Teachings

- Full responsibility of a Java programming class
- Supervision of tutorial classes for undergraduate students

Postdoc at LadHyX, Ecole Polytechnique

Jan. 2009 - Mar. 2010, Palaiseau

Development of a matlab toolbox to study the dynamics of plants

- Interdisciplinary collaboration with Physicist and Bio-physicist
- Signal processing and computer vision
- Statistical clustering
- UI (matlab)
- <http://github.com/julien-diener/CRtoolbox>

Ph.D at Evasion team, INRIA

Sept. 2005 - Dec. 2008, Grenoble

PhD on motion generation methods for virtual plants, under the supervision of Lionel Reveret.

Two main approaches have been explored:

- Motion Capture for plants: image analysis, video tracking, clustering, skeletal animation
Hierarchical retargetting of 2D motion fields to the animation of 3D plant models
J Diener, L Reveret, E Fiume - published in Eurographics-SCA 2006
- Real-time simulation on GPU: Finite-element method, Physical simulation, GPU
Wind projection basis for real-time animation of trees
J Diener, M Rodriguez, L Baboud, L Reveret - published in Eurographics 2009