



# Nomena F. NY HOAVY

*Academic*

## Personal Details :

Place | Age : Antananarivo, Madagascar | 25

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My areas of interest: machine learning, information retrieval, complex systems modeling.

## Publications

- o *IRIT & MISA at Image CLEF 2017 - Multi label classification (regular paper).*

Josiane Mothe, Nomena Ny Hoavy, Mamitiana Ignace Randrianarivony.

International Conference of the CLEF Association, CLEF 2017 Labs Working Notes, Dublin, Ireland, 11/09/2017-14/09/2017, Linda Cappellato, Nicola Ferro, Lorraine Goeuriot, Thomas Mandl (Eds.), 2017.

Josiane Mothe, Nomena Ny Hoavy, Mamitiana Ignace Randrianarivony.

## Work Experience

- 2018 **Data Miner in collaboration with MISA , Antananarivo, Data scientist .**

As an external service provider, we did a remake of the (Bank) Credit Scoring. Our main goal has been to improve the existing model. I evaluated different types of models, ranging from advanced statistical (eg logistic regression) to artificial intelligence (eg artificial neural networks) techniques, applied to existing data.

- 2017 **Web Application Developer TeamTic Madagascar , Antananarivo, Analyst Java / Java EE.**

As team's Full Stack developers, our mission is to analyze, model and build business applications using JEE technology. We use Spring MVC and JSF frameworks coupled with Oracle database.

- Mars 2015 **Developer E-saina , Antananarivo, Odoo modules developer.**

On demand of the companies, we worked on the OpenERP Odoo management software. This opensource software was adapted to fit their needs by integrating and developing modules using Python programming language and PostgreSQL database.

- 2014 **Société ARO Madagascar, website Developer.**

We proposed to this company to digitize these activities in order to minimize these resources (in time and space) and better manage them. Thus we set up an intranet website allowing to manage staff data, workflows, documents and communication. We used PHP JavaScript and Mysql technologies.

- 2014 **UNICECAM Madagascar**, *Staff former in using Debian distribution.*  
To accompany the migration of this institution towards using free and opensource software, we trained their staff on the interest of using these types of software. The training included an introduction to the use of the Debian - Ubuntu 14 distribution.
- 2014 **Trainee at SSII Madamaster Madagascar**, *Web developer and integrator.*  
As part of our courses, I was received by this IT services company to do an internship program as a web developer. We used Zend framework, WordPress CMS and the MySQL database.

## Additional training

- 2018 **JEDI Workshop - Big Data Science**, *JEDI Student.*  
As a JEDI Student, Our group's work was to study Optical and Radar Imagery for Sustainable Agriculture. Utilizing the latest earth observation imaging platforms (ESA's Sentinel missions and NASA's LandSat) we have looked at a range of uses and techniques for optical and radar imaging in agriculture. (<http://www.idia.ac.za/workshop/jedi-madagascar>)
- 2018  **$E^2M^2$  - Ecological & Epidemiological Modeling in Madagascar**, *Participant.*  
I had the opportunity to participate in this workshop (<http://metcalflab.princeton.edu/e2m2-application/>) during which we studied mathematical modeling (mechanistic and statistic). I proposed and worked on the study of the link between deforestation and the emergence of infectious diseases: the plague.
- 2017 **FabSpace BootCamp Program**, *Participant.*  
This bootcamp (<https://www.irit.fr/FabSpace/en/node/86>) proposed technical and business sessions on Earth observation. We participated to it to develop our Fabspace project which focuses on the mapping of the relationship between deforestation and the emergence of epidemic diseases on an area of interest (Madagascar for example).

## Awards

- 2017 **Team Winner Créathon C2E 2017 Competition**, *Team Velox : Technical manager.*  
Within the Velox team, our project named "iDéfi" was one of the winners during the C2E Créathon 2017 organized by Réseau Canopé Poitiers (<https://www.c2e-poitiers.com/creathon-2017/>). IDefi is a digital platform (web and mobile) to animate these users to make ecological actions. Through challenges, it simplifies access to ecological actions and projects, in a fun and interactive way.

## Courses and diplomas

- 2014-2015 **Master's degree**, in *Applied Mathematics and Computer Science - Mathématiques Informatique et Statistique Appliquées : MISA* .  
Faculty of sciences Ankatso, University of Antanarivo, Madagascar  
Thesis 2016: "image captioning via deep learning" | with Honors  
Advisor: Prof. Josiane Mothe de l'Université de Toulouse / IRIT
- 2012-2013 **Academic semesters - Maîtrise en Informatique et Statistique Appliquée :MISA** , Faculty of sciences Ankatso, University of Antanarivo, Madagascar.
- 2010-2012 , *Mathematics and Computer Science.*  
Faculté of sciences Ankatso, University of Antanarivo, Madagascar  
**Diplôme Universitaire d'Etudes Scientifiques II (DUES II)**

2010 **Baccalauréat (French secondary school diploma) Série C** , *Terminale C (Scientific)* / *with distinction*.  
Lycée Moderne Ampefiloha, Antananarivo, Madagascar

## Computer Skills

OS	<b>Linux, Windows.</b>
Programming languages	<b>C/C++, HTML5/CSS3, PHP5, SQL, JavaScript, Java, XML, UML, Python, R.</b>
Network	<b>LAN, TCP/IP, routing.</b>
Multimedia	<b>Gimp, Adobe Photoshop, Audacity.</b>
Areas of Interest (ordered)	<b>Information retrieval (Information System), Imaging and computer vision, Probability and Applied Statistics, Games Theory, Graph theory, Parallel and Distributed Algorithm, Algorithmic, Multi-agent system, Semantics of programming languages.</b>

## Languages

Malagasy	<b>native language</b>
French	<b>bilingual proficiency</b>
English	<b>limited working proficiency</b>
German	<b>elementary proficiency</b>

## Interests and Activities

- Videos Games
- Football
- Traveling
- Volley-ball

## coordinates of the referents

Names	Titles	coordinates
Prof. Vlady RAVELOMANANA	Instructor Master 2 in cooperation with Université Paris Diderot	vlad@irif.fr
Prof. Josiane MOTHE	Instructor and advisor Master 2 in cooperation with Université de Toulouse and IRIT laboratory	josiane.mothe@irit.fr
Dr. Olivier ROBINSON	Instructor and advisor Master 2 in Université d'Antananarivo Madagascar	robinson@moov.mg