

# Isaac Kamga

## M.Sc. Computer Science

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📄 <https://github.com/Izakey>



### Education

- 2010 – 2015 **MSc. Computer Science**, University of Buea, Cameroon..  
*Implementing a heart-shaped primitive in BRL-CAD*
- 2009 – 2010 **Part-Qualified Accountant**, The Association of Certified Chartered Accountants, Glasgow, United kingdom.  
*Accountant In Business(F<sub>1</sub>), Management Accounting(F<sub>2</sub>), Financial Accounting(F<sub>3</sub>), Corporate And Business Law(F<sub>4</sub>) & Performance Management(F<sub>5</sub>)*
- 2005 – 2008 **BSc. Mathematics and Computer Science**, University of Buea, Cameroon..  
*Magna Cum Laude*

### Professional Experience

- Oct 2012 – Oct 2014 **Research engineer**, *PARIETAL – INRIA, Neurospin CEA, Saclay*.  
Non-smooth convex optimization; preprocessing and statistical analysis of fMRI data; registration algorithms; machine learning on fMRI data; software engineering
- Sep 2011 – Oct 2012 **Freelancer and Open-Source**, *Various employers*.  
Simulations for CR (Cognitive Radio) research; Windows system programming (DLLs, user-space root-kits, etc.); implementation of Machine Learning algorithms
- Mar 2011 – Aug 2011 **Cryptology and Security intern**, *P1 Security, Paris, France*.  
Implementation of an event-driven pentesting framework for telecom and VoIP-like protocols

### Computing Skills

- Programming Languages C/C++, Javascript, L<sup>A</sup>T<sub>E</sub>X
- Software Engineering OOP, TDD, EDD, version control (git, github, bitbucket), continuous integration (travis)
- Operating Systems Linux, Windows (plus shell scripting & system programming skills)
- Github profile <https://github.com/Izakey>

### Scientific Publications (see complete google scholar)

- 2014 ○ A. ABRAHAM, E. DOHMATOB, B. THIRION, D. SAMARAS, G. VAROQUAUX, "Region segmentation for sparse decompositions: better brain parcellations from rest fMRI". <http://stmi2014.ece.cornell.edu/papers/STMI-P-9.pdf>
- B. THIRION, G. Varoquaux, E. DOHMATOB, J.-B. POLINE, "Which fMRI clustering gives good brain parcellations?". *Frontiers in Neuroinformatics*. <http://journal.frontiersin.org/Journal/10.3389/fnins.2014.00167/abstract>
- E. DOHMATOB, A. Gramfort, B. THIRION, G. Varoquaux "Benchmarking solvers for TV- $\ell_1$  least-squares and logistic regression in brain imaging". *Pattern Recognition in Neuroimaging (PRNI), IEEE*. <http://hal.inria.fr/hal-00991743>

- 2013 ○ A. ABRAHAM, E. DOHMATOB, B. THIRION, D. SAMARAS, and G. VAROQUAUX, “Extracting brain regions from rest fMRI with Total-Variation constrained dictionary learning”. MICCAI - 16th International Conference on Medical Image Computing and Computer Assisted Intervention - 2013 (2013). <http://hal.inria.fr/hal-00853242>

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## Contributions to open-source software projects

- Neuro-Imaging nipy <http://nipy.org>, Nilearn <http://nilearn.github.io>, pyprocess <https://github.com/neurospin/pyprocess>
- Personal projects See complete list on my github profile: <https://github.com/dohmatob>

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## Scientific Talks

- PRNI 2014 At the PRNI (Pattern Recognition in Neuroimaging) conference that took place 3rd – 6th June 2014 (Max-Planck Institute for Intelligent Systems, Tuebingen – Germany), I presented my work, “Benchmarking solvers for TV- $\ell_1$  least-squares and logistic regression in brain imaging” (<http://hal.inria.fr/hal-00991743>).
- Forum STIC 2014 Poster presentation for PRNI2014 paper at STIC, Paris-Saclay, France.
- OHBM 2015 Oral + poster presentation on “SpaceNet: Multivariate brain decoding and segmentation”, Honolulu, Hawaii, USA
- PRNI 2015 Oral presentation on “Speeding-up model selection in GraphNet via early-stopping and feature-screening”, Stanford, USA

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## Hackathon Experience

- Google Hash Code Paris, 2014 Implementation of street-viewer for Paris. Problem can be modelled as a TSP.
- Brainhack Paris, 23rd – 26th Oct 2013 Group analysis on Henson’s multi-modal faces vs objects dataset.

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## Languages

- Bilingual English (*fluent*), French (*fluent*)

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## Awards and Scholarships

- 2014 Honourable Mention (2nd price) awarded to the paper “Benchmarking solvers for TV- $\ell_1$  least-squares and logistic regression in brain imaging”, by E. DOHMATOB, A. GRAMFORT, B. THIRION, G. VAROQUAUX (<http://hal.inria.fr/hal-00991743>), presented at the 4th international workshop on Pattern Recognition in NeuroImaging (PRNI 2014), Max-Planck Institute for Intelligent Systems, Tuebingen – Germany
- 2009 - 2011 Erasmus Mundus, ALGANT, University of Bordeaux 1

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## Interests

- Research convex optimization, nonlinear registration, machine learning, human connectome mapping, game theory
- Hobbies Reading, dancing, running