DOHMATOB Elvis Dopgima

Research Engineer

Parietal - INRIA, CEA / Neurospin Bât 145
Point Courrier 156, 91191 Gif/Yvette, France.
✉ *elvis.dohmatob.inria.fr*
www.linkedin.com/pub/elvis-dohmatob/79/ba9/53b

Education

2010-2011 **MSc. in Cryptology and Information Security**, *University of Bordeaux 1*.
Pentesting for telecom and VoIP-like protocols including SS7, SIGTRAN, SIP, GTP, etc.

2009-2010 **Maîtrise ès Mathématiques**, *University of Bordeaux 1*.
On explicit constructions of "good" LDPC QECCs (*Low-Density Parity-Check Quantum Error-Correcting Codes*). Supervised by Gilles ZEMOR

2005-2008 **BSc. in Mathematics and Computer Science**, *University of Buea, Cameroon*.

Professional Experience

October 2012 - present **Research engineer**, *PARIETAL Team - INRIA, Neurospin CEA, Saclay*.
Non-smooth convex optimization; preprocessing and statistical analysis of fMRI data; registration algorithms; machine learning on fMRI data.

September 2011 - October 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

March 2011 - August 2011 **Cryptology and Security intern**, *P1 Security*, Paris, France.
Implementation of an event-driven pentesting framework for telecom and VoIP-like protocols

IT and Computing Skills

Languages	Python, ASM x86, C/C++, MATLAB, R, PARI/GP, javascript
Maching Learning	LibSVM, scikit-learn, pandas
Neuro-imaging	nilearn, SPM, FSL, nipy, nipype, freesurfer, mayavi, pypreprocess
Code Engineering	OOP, TDD, EDD, version control (git, github), CI (travis), parallel computing
Operating Systems	Linux, Windows (including shell scripting and system programming skills)
Network Protocols	TCP/IP, SMB, IPSec, LDAP, SSL, SIP, DNS
Cryptology	Number Theory, Elliptic Curves, Smart Cards, Asymmetric Cryptography (RSA), Symmetric Cryptography (PKI, DH, DES, AES)
Security	Snort, Nmap, METASPLOIT, OllyDbg, Immunity Debugger, IDA Pro, SPIKE

Scientific Publications (journal and conference papers)

PRNI 2014 (*IEEE*) E. DOHMATOB, A. Gramfort, B. THIRION, G. Varoquaux "*Benchmarking solvers for least-squares and logistic regression in brain imaging*". Pattern Recoginition in Neuroimaging (PRNI), IEEE. `http://hal.inria.fr/hal-00991743`

MICCAI 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`

Contributions to open-source software projects

Neuro-Imaging nipy `http://nipy.org`, nilearn `http://nilearn.github.io`, pypreprocess `https://github.com/neurospin/pypreprocess`

Personal projects See complete on my github profile: `https://github.com/dohmatob`

Scientific Talks

PRNI 2014 — For PRNI (Pattern Recoginition in Neuroimaging) conference that toke place June 3rd – June 6th 2014 at the Max-Planck Institute, Tuebingen – Germany, I was invited to present my work, *Extracting brain regions from rest fMRI with Total-Variation constrained dictionary learning* (`http://hal.inria.fr/hal-00991743`), under the "Advances in fMRI analysis" section of the conference.

Hackathon Experience

BrainHack 2013 — With Alexandre Gramfort, I worked on Henson's multimodal (fMRI, MEG, DTI) faces vs objects dataset

Google Hash Code Paris 2014 — In this competition, I teamed with 2 other members to implement an automatic street-viewer. The underlying problem can formulated as a multi-objective TSP. Our algorithm was a Monte-Carlo (random walks on the roadmap of Paris).

Languages

Bilingual — English (fluent), French (fluent)

Scholarships

2009 - 2011 — Erasmus Mundus, University of Bordeaux 1

Interests

Research — Machine learning, optimization, image registration, stochastics and statistics, cryptology

Hobbies — Reading, dancing, running