

Professional Experience

- Since Oct 2016 **Postdoctoral researcher**, *Centre d'analyse et de mathématiques sociales*, resident in the Institut des Systèmes Complexes, Paris.
Study the structure of networks such as Twitter for the Politoscope project. The main objective is to detect communities of political activists on Twitter but also, and above all, to track their evolution through time. This allows citizens and journalists to better understand the political organization existing on Twitter.
- October 2013 **Ph.D. student**, *Université Pierre et Marie Curie*, in the ComplexNetwork team, LIP6, Paris.
- Oct 2016 Community detection in link streams. Link stream provide a new way to understand temporal networks. A link stream is a sequence of timed interactions between two entities, *e.g.* email exchanges. In this context, a community should be a dense sub-stream, *e.g.* a discussion instead of a group of friends.
- Feb 2013 - **End-of-studies internship**, *Thales Air System in the Innovation Lab*, Rungis.
July 2013 Study and optimization of flight plan predictions on specific way-points.
Key concepts: machine learning, data extrapolation. *Languages*: C++, R.
- Sept 2011 - **Software developer internship**, *Commissariat à l'énergie atomique (CEA)*, Brétigny-sur-Orge.
Feb 2012 Design and development of an algorithm able to generate quadrilateral mesh under a vector field constraint and geometric constraints. *Key concepts*: paving mesh generation, finite element. *Language*: C++.

Education

- Sept 2008 - **Engineering school**, *Université de Technologie de Compiègne*, in Computer Science, Compiègne.
July 2013 IT project examples carried out during my university training:
June 2008 **High school diploma in science**, specialty mathematics, with honors in lycée *Fulbert*, Chartres.

Technical skills

- Mathematics Graph theory, complex systems, mathematical optimization, meta-heuristics, constrained programming, basics in cryptography.
- Computer **Programming**: C++, Python, Rust, Lisp, PostgreSQL.
Software: Git/svn, Gephi/Tulip, Scilab.
Web: HTML, JavaScript, CSS, PHP.

Publications

Submission

- [1] Noé Gaumont, Mazyar Panahi and David Chavalarias. Methods for the reconstruction of the socio-semantic dynamics of political activist Twitter networks: Application to the 2017 French Presidential elections . Submitted to *PlosOne*: <https://hal.archives-ouvertes.fr/hal-01575456v2>

International journal

- [2] Noé Gaumont, Clémence Magnien and Matthieu Latapy. Finding remarkably dense sequences of contacts in link streams. *Social Network Analysis and Mining*, 6(1), 87: <https://hal.archives-ouvertes.fr/hal-01390043>

International workshop

- [3] Noé Gaumont, Tiphaine Viard, Raphaél Fournier-S'niehotta, Qinna Wang and Matthieu Latapy. Analysis of the temporal and structural features of threads in a mailing-list. In *Complex Networks VII*, Dijon, France. 2016. *Acceptation rate*: 23%: <https://hal.archives-ouvertes.fr/hal-01345821>
- [4] Noé Gaumont, François Queyroi, Clémence Magnien and Matthieu Latapy. Expected Nodes: a quality function for the detection of link communities. In *Complex Networks VI*, New-York, USA. 2015. Long version of [5]. *Acceptation rate*: 20%: <http://hal.upmc.fr/hal-01196796>

National conference

- [5] Noé Gaumont and François Queyroi. Partitionnement des liens d'un graphe : Critères et Mesures. In *Algotel - 16èmes Rencontres francophones sur les Aspects Algorithmiques des Télécommunication*, Ile de ré, France. 2014. *Acceptation rate: 55%*: <https://hal.archives-ouvertes.fr/hal-00986216>
- [6] Noé Gaumont. Trouver des séquences de contacts pertinentes dans un flot de liens. In *Algotel - 18èmes Rencontres francophones sur les Aspects Algorithmiques des Télécommunication*, Bayonne, France. 2016. Short version of [2]. *Acceptation rate: 60%*: <https://hal.archives-ouvertes.fr/hal-01305118>

Talks

International audience

- [7] Noé Gaumont, Maziyar Panahi and David Chavalarias. *Evolution of communities on twitter during the 2017 French presidential election* in Conference Complex Systems (CCS) . 2017: <http://easychair.org/smart-program/CCS'17/2017-09-18.html#talk:47444>
- [8] Noé Gaumont, Clémence Magnien and Matthieu Latapy. *Bringing density to link streams reveals meaningful groups in contact traces* in workshop e-Young Researchers Network in Complex Systems. 2015: <http://cs-dc-15.org/e-tracks/global/#yr>
- [9] Tiphaine Viard and Noé Gaumont. *LinkStreamViz: a drawing tool for link stream*. In *Workshop Dynamics On and Of networks*. 2016: <https://project.inria.fr/netspringlyon/3-workshops-on-network-sciences/workshop-on-processes-on-and-of-networks/>

National audience

- [10] Noé Gaumont. *Utilisation de flots de liens pour étudier les interactions temporelles*, 24e journées thématique de Rochebrune 2017
- [11] Noé Gaumont. *Tools to study link streams*, in workshop Outils d'analyse de la dynamique temporelle dans les réseaux in Toulouse, France. 2016: <http://xsys.fr/wp-content/uploads/2016/09/journee%CC%81e-du-14-decembre.pdf>

Scientific responsibilities

Member of the organizing committee of MARAMI 2014 and ASONAM 2015.

Reviewer for: SITIS 2015, WWW 2015, Algotel 2016, ICDE 2016 and Journal of Complex Networks.

Teaching and vulgarisation

Basics of C (40h as) and python (20h) programming

Introduction to database with PostgreSQL (20h)

Animations in various places:

- *Learning HTML and CSS with paper cubes and Thimble*, for childrend and adults in library.
- *What stay private when surfing on the internet?*, for childrend and adults in library
- Politoscope presentation for the inauguration of the exposition Tera Data at cité des sience <http://www.cite-sciences.fr/fr/au-programme/expos-temporaires/terra-data/>
- Presentation of politoscope and other ISCPIF projects at Innovatives SHS, a valorisation fair for humanities and social sciences in Marseille <http://innovatives.cnrs.fr/innovatives-shs-2017/exposition/article/expertise>

Tiphaine Viard and Noé Gaumont. *How research works in computer science*, in the CoFestival, an inclusive event to convey technical and scientific knowledge. <http://web.archive.org/web/20160111020002/http://cofestival.org/#programme>

Training

School on structure and dynamics of complex networks (2 weeks)

Rescom 2014 : Network Science (1 week)

Language skills

- English European level C1. Good working knowledge.
 - *TOEIC score in 2012: 960/990.*
- German European level B2. Basic knowledge.

Interest

Open-source software (Mozilla), privacy on the web, sport (bouldering, badminton).