

## Professional experience

- Oct. 2016 - **Postdoctoral researcher**, *Centre d'analyse et de mathématiques sociales*, resident in the Institut des Systèmes Complexes, Paris.  
Aug. 2018 Study of 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.
- Oct. 2013 - **Ph.D. student**, *Université Pierre et Marie Curie*, in the ComplexNetwork team, LIP6, Paris.  
Oct. 2016 Develop 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 elements. *Language*: C++.

## Education

- Sept. 2008 - **Engineering school**, *Université de Technologie de Compiègne*, in Computer Science, Compiègne.  
July 2013
- 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**: Rust, C++, Python, Scala, Spark, PostgreSQL.  
**Software**: Git/svn, Gephi/Tulip, Scilab.  
**Web**: HTML, JavaScript, CSS, PHP.

## Publications

### International journal

- [1] Noé Gaumont, Mazyar Panahi and David Chavalarias. Reconstruction of the socio-semantic dynamics of political activist Twitter networks: Method and application to the 2017 French presidential election. *PLOS ONE* 13(9): e0201879 : <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0201879>
- [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>

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## Talks

### International audience

- [7] Maximilien Danisch, Noé Gaumont and Jean-Loup Guillaume. *A Modular Overlapping Community Detection Algorithm: Investigating the “From Local to Global” Approach* in Cologne Twente Workshop (CTW) . 2018: <https://papers-gamma.link/paper/33/A%20Modular%20Overlapping%20Community%20Detection%20Algorithm%20Investigating%20the%20E2%80%9CFrom%20Local%20to%20Global%E2%80%9D%20Approach>
- [8] 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>
- [9] 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>
- [10] 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

- [11] Noé Gaumont. *Utilisation de flots de liens pour étudier les interactions temporelles*, 24e journées thématique de Rochebrune 2017
- [12] 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/journe%CC%81e-du-14-decembre.pdf>

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## Teaching and vulgarisation

Basics of C (100h) and python (20h) programming

Introduction to database with PostgreSQL (20h)

Voluntary animations in various places:

- *Welcome to the light side of Big Data*, Pint of Science, Paris. [https://ngaumont.fr/asset/Pint\\_Science/](https://ngaumont.fr/asset/Pint_Science/).
- *Learning HTML and CSS with paper cubes and Thimble*, for children and adults in library.
- *What stay private when surfing on the internet?*, for children and adults in library.
- Presentation of politoscope for the inauguration of the exposition Tera Data at Cité des Sciences. <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>

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## 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).