

Élie Bouttier

PhD Student

+33 6 51 80 98 28

✉ elie@bouttier.eu

📄 bouttier.eu/~elie/

🌐 [bouttier](https://github.com/bouttier)

GPG key ID: 0xDD5D7D00

Education

- 2014-2017 **PhD in Computer Science and Telecommunication Networking.**
- 2011-2014 **INP-ENSEEIH**T, *National Polytechnic Institute of Toulouse*, Engineering Degree. Computer Science and Maths department.
- 2009-2011 **Two-year undergraduate intensive course**, Mathematics & Physics specialisation.
- 2006-2009 **Senior High School**, *Scientific Baccalauréat*.

PhD

- Title **CONTENT DELIVERY ON HYBRID SATELLITE / TERRESTRIAL NETWORKS.**
- Synopsis Proposal, implementation and evaluation of an intelligent routing algorithm based on the content size to improve user experience in heterogeneous networks.
- Laboratories **Telecommunications for Space and Aeronautics (TéSA)**
Toulouse Institute of Computer Science Research (IRIT)
- Industrial partners **Centre National d'Études Spatiales (CNES), Thales Alenia Space (TAS)**

Experience

- 2014 6 months internship at *Sierra Wireless*, Vancouver, Canada
IPsec tunnel deployment automation with OpenStack, salt, racoon and Python
- 2013 2 months internship at *Telecommunications for Space and Aeronautics (TéSA)*
Implementation of TCP Initial Spreading in the Linux TCP/IP kernel stack

Teaching

- 2014-2017 250h at INP-ENSEEIHT, Telecommunication and Network department.
Subjects C, Java, Network, Local Networks, TCP/IP, Graph, Operating System

Publications

Conference papers

- E. Bouttier, R. Dhaou, F. Arnal, C. Baudoin, E. Dubois, and A. L. Beylot. Analysis of content size based routing schemes in hybrid satellite / terrestrial networks. In *2016 IEEE Global Communications Conference (GLOBECOM)*, Dec 2016.
- E. Bouttier, R. Dhaou, F. Arnal, C. Baudoin, E. Dubois, and A. L. Beylot. Heterogeneous multipath networks: Flow vs. packet based routing in a size-aware context. In *2017 IEEE Global Communications Conference (GLOBECOM)*, Dec 2017.
- E. Bouttier, R. Dhaou, F. Arnal, C. Baudoin, E. Dubois, and A. L. Beylot. Improving content delivery with size-aware routing in hybrid satellite / terrestrial networks. In *2018 IEEE International Conference on Communications (ICC)*, May 2018.

Presentations

- june 2016 NetSat Days - Toulouse Space Show
- dec. 2016 IEEE GLOBECOM 2016 - Washington
- dec. 2017 IEEE GLOBECOM 2017 - Singapore
- june 2018 NetSat Days - Toulouse Space Show

Computer skills

Operating Systems

GNU/Linux (ArchLinux, Debian, Ubuntu), OpenBSD.

Programming

Expert in C and Python, experience in Linux kernel programming.

Comfortable with network, system and asynchronous programming.

Also learned C++11, Java, PHP, HTML/CSS, SQL, ... Interested in Rust projects.

Networking

Expert in GNU/Linux and OpenBSD networking tools.

IPv6 fan, accustomed to work with DNS, OSPF, BGP, IPsec, VPN, ...

Virtualization and Cloud Computing

Operation of many virtual machines with libvirt and KVM.

Automation with ansible. Past experience with OpenStack and salt.

AdminSys

Deployment and operation of several services under GNU/Linux
mail, databases, web, files, monitoring, VPN, instant messaging, ...

Networking skills

Strong knowledge of TCP/IP and others usual protocols.

Specific knowledge in following areas:

- o Content Delivery Networks (CDN)
- o Heterogeneous networks
- o Transport protocols

Languages

French **Native speaker.**

English **Intermediate level**, *TOEIC level: 850.*

Very good understanding of technical documentation and vocabulary.

Spanish **High school level**, *practiced in engineering school.*

Interests

Computing and networking Member of tetaneutral.net, not-for-profit Internet Service Provider (ISP).

networking Leader of the Toulouse antenna of the French Red Cross ICT team in charge of developing and deploying emergency communications systems (SatCom and wifi).

Free and Open-Source software (FOSS) enthusiastic.

Sports Climbing, walking, mountain bike.