Rémy Léone | Research engineer, PhD student

remy.leone@gmail.com • sieben.fr
remyleone • remyleone • sieben • French, 26 yo

Research experience

Inria Paris - EVA team **Feb 2016 - ∼ Feb 2017**
Post-doc
Working on F-Interop, a 3-year European research project which aims at studying, designing and implementing a Cloud-based service to test the compliance and interoperability of IoT products and implementations.
- *Design, specification, development and maintenance of a complex and distributed test environment*
- *Targetted protocols : IEEE802.15.4, 6TiSCH, 6LoWPAN, RPL, CoAP, OneM2M, ETSI M2M*
- *Agile methodology*

(advisor : Thomas Watteyne)

Telecom Paris Tech & Thales Communication and Security **Jan 2013 - ∼ Jan 2016**
PhD Candidate
Title : Smart gateways for low-power and lossy networks.
- *Workflow for WSN reproducible research with an open source prototype* `http://github.com/sieben/makesense`
- *Worked on gateway caching proxy servers*
- *Active & passive monitoring of constrained networks*
- *Contiki (C), Java, Wireshark, numpy, matplotlib, pandas, IPython*

(advisor : Jean-Louis Rougier*, Vania* Conan*)*

Thales Communications & Security - Colombes **2012**
Final year's internship
Design and implementation of a proxy server for low power and lossy networks with an adaptive cache policy that match lifetime constraints with acceptable network traffic
Contiki (C), Java, CouchDB (advisor : Jeremie Leguay*, Paolo* Medagliani*)*

CEA - DAM - Bruyères-le-Châtel **2010**
Intern
Re-factored and debug of a Fortran nuclear physics application
gfortran, Sun OS, Red Hat Enterprise Linux, Shell (advisor : Thierry Granier)

Education

ENSIIE, Evry, France **2010 - 2012**
Degree in Computer Science engineering
major in Operating Systems and Network Administration, Routing and Quality of service, Software certification and System Security.

Lycée Fénelon, Paris, France **2008 - 2009**
Preparatory school (French CPGE)
major in Mathematics and Physics.

Knowledge and skills

Theory : Data Analysis, Database Design, Statistics, Optimization, Numerical Analysis ; language and compilation theory ; graphs and operational research

Administration : GNU/Linux : System and network administration, Computer Architecture, Operating System

Backend : flask, django, nginx, CouchDB, PostgreSQL, redis, RabbitMQ, ansible, gitlab

SCM : SVN, git, CVS

Scientific software : pandas, numpy, matplotlib, ipython, LaTeX, R, Octave (∼ Matlab)

Virtualization : VirtualBox, Docker, Vagrant

Networking : Routing and Quality of Service, network architecture and protocols, Wireless, TCP/IPv4/IPv6, VPN, Wireshark

Programming : C, Java, ASM (Intel, 68k), Python, SQL, OCaml, Shell, Concurrent Programming, several contributions to free software

Teaching

Type	Hours	Audience	Level	Language	Description
Tut/Lab	60.5h	∼ 30 students	1st year eng.	FR	RES101 (BCI Réseaux)
Tut/Lab	18h	∼ 10 students	International M2	EN	RES841 (Computer Networks)
Tut/Lab	42h	26 students	1st year eng.	FR	INF103 (Java programming)

TOTAL : **120.5 h**

Publications

[1] Fadwa Boubekeur et al. "Bounding Degrees on RPL". In : *Proceedings of the 11th ACM Symposium on QoS and Security for Wireless and Mobile Networks*. ACM. 2015, p. 123–130.

[2] Keoma Brun-Laguna et al. "(Not so) intuitive results from a smart agriculture low-power wireless mesh deployment". In : *Proceedings of the Eleventh ACM Workshop on Challenged Networks*. ACM. 2016, p. 25–30.

[3] Simone Cirani et al. "A scalable and self-configuring architecture for service discovery in the internet of things". In : *Internet of Things Journal, IEEE* 1.5 (2014), p. 508–521.

[4] Rémy Leone, Paolo Medagliani et Jérémie Leguay. "Optimizing qos in wireless sensors networks using a caching platform". In : *Sensornets 2013*. 2013, p. 56.

[5] Rémy Leone et al. "MakeSense : Managing Reproducible WSNs Experiments". In : *Fifth Workshop on Real-World Wireless Sensor Networks* (2013).

[6] Rémy Leone et al. "Technical Overview of F-Interop". In : *Conference on Interoperability in IoT (Inter-IoT)*. 2016.

[7] Rémy Léone et al. "Demo Abstract : Automating WSN experiments and simulations". In : *EWSN 2015*.

[8] Rémy Léone et al. "Demo Abstract : MakeSense—Managing Reproducible WSNs Experiments". In : *Real-World Wireless Sensor Networks*. Springer, 2014, p. 65–71.

[9] Rémy Léone, Paolo Medagliani, Jérémie Leguay et al. "Optimisation de la qualité de service par l'utilisation de mémoire cache". In : *15èmes Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications (AlgoTel)* (2013), p. 1–4.

[10] Rémy Léone et al. "Tee : Traffic-based Energy Estimators for duty cycled Wireless Sensor Networks". In : *ICC 2015*.

Projects and collaborations

Ongoing projects

Year	Name and funding source	Description and comments
since 2015	F-interop (H2020) http ://www.f-interop.eu/	*Remote Interoperability, Conformance, and Performance Tests for the Internet of Things*

Former projects

2012–2015	IRIS (ANR) http ://www.anr-iris.fr	*All IP Networks for the Future Internet of Smart Objects*
2011–2013	Calipso (EU/FP7) http ://www.ict-calipso.eu/	*Connect All IP-based Smart Objects*

Community

— Multiple contributions on code quality and continuous integration in Contiki
— Support on open source mailing list
— IT administration in a science association (Paris Montagne)

Additional information

Languages : French (native), English (fluent), Spanish (high-school level),