

Iain R. Learmonth MScI.

CONTACT INFORMATION	<i>E-mail:</i> irl@fsfe.org <i>OpenPGP:</i> A8F7BA5041E133339CBA169676D58093F540ABCD	<i>WWW:</i> iain.learmonth.me
OBJECTIVE	To create and share free and open source technologies that can empower others to connect and do good things.	
EDUCATION	University of Aberdeen , Aberdeen, UK. MSci, Computing Science (with Industrial Placement) with First Class Honours	September 2009 to 2014
PROFESSIONAL EXPERIENCE	The Tor Project , The Internet. <i>Metrics Team, Software Developer</i> Maintainence of software used by Tor Project for collecting and analysing data from the Tor network. Supporting the development of the Tor client software and the health of the Tor network through interpreting the analysed data. Additionally, supporting external researchers in studying the Tor network.	July 2018 to —
	University of Aberdeen , Aberdeen, UK. <i>Electronics Research Group, Research Assistant</i> Providing skilled assitance to research projects within the research group in the area of Internet engineering.	June 2013 to June 2018
VOLUNTEER EXPERIENCE	The Debian Project , The Internet <i>Developer</i> As a Debian Developer I assist in packaging and documentation efforts for software in Debian. My focus within the project is on software relating to amateur radio and tools for computer networking and computer security research.	September 2014 to —
	The Tor Project , The Internet <i>Core Contributor</i> As a volunteer core contributor of the Tor Project I maintained tools for collecting and analysing metrics for the Tor network.	June 2016 to June 2018
	57North Hacklab , Aberdeen, UK <i>Founding Director</i> As one of the founding directors of Aberdeen's hackerspace, I assisted with setting up the infrastructure required for the day-to-day running of the hackerspace and participated in the formation and running of a private limited company.	February 2014 to October 2014
OTHER QUALIFICATIONS	Radio Communcations Foundation <i>Advanced Level Certificate in Radio Communication</i>	October 2016
PUBLICATIONS NOTE	Most of the following publications are available at: https://iain.learmonth.me/pubs/	

CONFERENCE
PUBLICATIONS

Mirja Kühlewind, Michael Walter, Iain R. Learmonth, and Brian Trammell. Tracing Internet Path Transparency. In *Proceedings of the 2018 Network Traffic Measurement and Analysis Conference (TMA '18)*, Piscataway, NJ, USA, Jun 2018. IEEE

Ana Custura, Gorry Fairhurst, and Iain Learmonth. Exploring usable path MTU in the Internet. In *Proceedings of the 2018 Network Traffic Measurement and Analysis Conference (TMA '18)*, Piscataway, NJ, USA, Jun 2018. IEEE

Iain R. Learmonth, Andra Lutu, Gorry Fairhurst, David Ros, and Ozgu Alay. Path transparency measurements from the mobile edge with PATHspider. In *Proceedings of the 2017 Network Traffic Measurement and Analysis Conference (TMA '17)*, Piscataway, NJ, USA, Jul 2017. IEEE

Brian Trammell, Mirja Kühlewind, Piet De Vaere, Iain R. Learmonth, and Godred Fairhurst. Tracking transport-layer evolution with PATHspider. In *Proceedings of the 2017 Applied Networking Research Workshop (ANRW '17)*, pages 20–26, New York, NY, USA, Jul 2017. ACM

Iain R. Learmonth, Brian Trammell, Mirja Kuehlewind, and Gorry Fairhurst. PATHspider: A tool for active measurement of path transparency. In *Proceedings of the 2016 Applied Networking Research Workshop (ANRW '16)*, pages 62–64, New York, NY, USA, Jul 2016. ACM

Brian Trammell, Mirja Kühlewind, Damiano Boppert, Iain Learmonth, Gorry Fairhurst, and Richard Scheffenegger. Enabling internet-wide deployment of explicit congestion notification. In Jelena Mirkovic and Yong Liu, editors, *Proceedings of the 2015 Passive and Active Measurement Conference (PAM '15)*, pages 193–205. Springer International Publishing, 2015

CONFERENCE
PRESENTATIONS

Allison Mankin, Willem Toorop, Iain Learmonth, and Sathya Guneseakaran. Demo of DANE-Enhanced Version of “Off-the-Record” Private Messaging Tool. In *ICANN 50*, Jun 2014

Sajid Nazir, Gorry Fairhurst, Fabio Verdicchio, and Iain Learmonth. Remote environmental monitoring through wireless sensor network and satellite: Demo. In *Digital Conservation Conference*, May 2014

Sajid Nazir, Gorry Fairhurst, Fabio Verdicchio, Ni Zhu, and Iain Learmonth. Resource management with wireless sensor networks and satellite in extreme climates. In *Digital Futures*, Nov 2013

TECHNICAL
REPORTS

Brian Trammell, Iain R. Learmonth, and Stephan Neuhaus. Middlebox observatory design and data model. Deliverable 1.2, Measurement and Architecture for a Middleboxed Internet (MAMI), Jun 2018

Benoit Donnet, Korian Edeline, Iain R. Learmonth, and Andra Lutu. Middlebox classification and initial model. Deliverable 2.1, Measurement and Architecture for a Middleboxed Internet (MAMI), Jul 2017

Diego R. Lopez, Norisy C. Orea, Pedro A. Aranda Gutierrez, Brian Trammell, Benoit Donnet, Gorry Fairhurst and Iain R. Learmonth, David Ros, Thomas Fossati, and Stephan Neuhaus. Standardization, dissemination and exploitation report. Deliverable 4.2, Measurement and Architecture for a Middleboxed Internet (MAMI), Dec 2016

Benoit Donnet, Korian Edeline, Raffaele Zullo, Brian Trammell, Mirja Kühlewind, Oscar Gonzalez de Dios, Iain R. Learmonth, and Andra Lutu. Initial report on measurement development and deployment. Deliverable 1.1, Measurement and Architecture for a Middleboxed Internet (MAMI), Dec 2016

Per Hurtig, Gorry Fairhurst, Bob Briscoe, Koen De Schepper, Andreas Petlund, Naeem Khademi, Nicolas Kuhn, and Iain Learmonth. RITE recommended use parameters report. Deliverable 3.4, Reducing Internet Transport Latency (RITE), Nov 2015

INVITED
TALKS

Iain R. Learmonth and Gorry Fairhurst. Mobile measurement of path transparency. 2nd Mobile Network Measurement Workshop (MNM '18), 2018

TECHNICAL
SKILLS

Software development and system administration experience in networking, web applications and simple analogue and digital electronics design.

Internet Engineering: Familiar with the TCP/IP stack with deep knowledge of Internet network and transport protocols. Experience with Internet measurement for performance and middlebox transparency.

Network Administration: Experience configuring Cisco and Ubiquiti routers, and Cisco, Juniper, HP and Ubiquiti switches. Familiar with the configuration and operation of basic network services (DNS, DHCP, SLAAC, NTP).

Computer Programming: Python, Java, JavaScript, shell scripting, GNU make, SQL and the use of VCS (git, Subversion). Extensive experience with the use of issue tracking and project management system such as (GitHub, Trac). Extensive experience with packaging processes for Debian (dpkg, debhelper).

Embedded Systems: Software and hardware development with Arduino and Raspberry Pi. Some experience with OpenWRT on various wireless routers and embedded boards.

Systems Administration: Experience with virtualisation technologies (Xen, KVM) and the configuration and operation of server software (Apache, bind, nginx, nsd, Postfix, unbound, NFS). Working knowledge of identity management systems (FreeIPA).

Information Technology: Microsoft Office, LibreOffice, Vim, L^AT_EX. Able to operate a web browser.

HOBBIES AND
INTERESTS

Amateur Radio, Home Automation, Free Software, Kittens.

REFERENCES

Available upon request.