

# STEPHEN FINUCANE

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## OVERVIEW

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Stephen is software engineer with over six years experience, most of which has been spent working in open source communities of varying sizes. He has been heavily involved in the OpenStack project since 2013, has worked on many other open source projects, most within the Python ecosystem, and has presented at multiple conferences during this time. His key interests include virtualization and the cloud, networking, and documentation.

## TECHNICAL SKILLS

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Programming	Web Development	DevOps
Python ●●●●●	HTML ●●●●●	Gerrit/Git ●●●●●
C ●●●●●	CSS ●●●●●	Linux ●●●●●
JavaScript ●●●●●	Django ●●●●●	Bash ●●●●●

## PROFESSIONAL EXPERIENCE

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- 7/2016 – present **Senior Software Engineer**, Red Hat, Limerick, Ireland (Remote)
- » Undertook a leadership role within OpenStack as a core developer (maintainer) on the Compute (nova) project along with many smaller OpenStack projects
  - » Retained a focus of Network Function Virtualization (NFV) and Telco feature development within OpenStack, but extended this to include community initiatives including documentation
  - » Helped drive large, multi-project initiatives, many with a focus on making OpenStack easier to deploy and manage
  - » Represented Red Hat at numerous OpenStack Summits and meetups
- 1/2015 – 7/2016 **Software Engineer (OpenStack)**, Intel, Shannon, Ireland
- » Developed Network Function Virtualization (NFV) enablement features for the OpenStack Compute (nova) project, including upstream contributions
  - » Validated and further extended CPU/NUMA affinity and Quality of Service (QoS) features in the Compute (nova) and Networking (neutron) projects
- 7/2013 – 1/2015 **Software Engineer (Open vSwitch)**, Intel, Shannon, Ireland
- » Developed acceleration features for IA-based platforms
  - » Developed and released a test framework for performance and validation testing of aforementioned features. Framework used as a basis for OPNFV vSwitch Performance Characterization Test Framework
  - » Led testing efforts of team, who were in the process of a move towards a continuous integration-based workflow. Worked extensively with Jenkins CI server.
- 5/2012 – 8/2012 **Software Engineering Intern**, Intel, Shannon, Ireland
- » Replicated and documented a Network Interface Controller performance test environment, as provided by another division

## OTHER NOTABLE CONTRIBUTIONS

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### **Patchwork**

- » Lead maintainer of Patchwork project, a tool for tracking contributions to development mailing lists ([ozlabs.org](http://ozlabs.org), [kernel.org](http://kernel.org), [dpdk.org](http://dpdk.org))
- » Worked with the Patchwork community to add a REST API, support for patch series, and continuous integration hooks, and to release Patchwork v2.0

### **Open vSwitch**

- » Worked with the Open vSwitch community to develop and deploy the documentation site now found at [docs.openvswitch.org](http://docs.openvswitch.org)

### **Sphinx**

- » Maintainer of Sphinx, a documentation tool used by projects like the kernel
- » Worked with the Sphinx community to rework the architecture of their documentation and improve the usability of the user-facing utilities

## TALKS & PRESENTATIONS

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### **Who Needs pandoc When You Have Sphinx?, FOSDEM 2019**

- » An overview of some lesser-known features of the Sphinx and docutils documentation tools

### **The Wonders of NUMA, OpenStack Summit Vancouver 2018**

- » A summary of what NUMA is and why it matters so much for high-performance workloads

### **Keeping It Real(Time), OpenStack Summit Sydney 2017**

- » An introduction to the real-time compute capabilities recently added to the OpenStack Compute project

### **Mailing List, Meet CI, FOSDEM 2017**

- » A demonstration on building a continuous testing system with a combination of Patchwork and an off-the-shelf, open source CI system

## EDUCATION

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9/2009 – 5/2013 **BEng in Computer Engineering**, University of Limerick, Ireland

- » Subjects studied included Software Development, Operating Systems, Distributed Systems, Active Circuit Design and Computer Architecture.
- » Final Year Project: “An Investigation into Wireless Sensor Networks and Bluetooth Low Energy” – Supervisor: Dr John Nelson
- » Final Grade: 1<sup>st</sup> (3.75 QCA)

7/2011 – 11/2011 **Certificate of Proficiency**, Massey University, New Zealand

- » Undertook a diverse selection of modules ranging from Web Development to Control Engineering
- » Developed paper titled “Smartphones in the Home, An Overview” – Supervisor: Prof. Subhas Mukhopadhyay
- » Final Grade: pass

## SCHOLARSHIPS & AWARDS

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### **Analog Devices Scholarship**

- » Award for outstanding engineering student(s) in Electronic and Computer Engineering

### **Intel Shannon Paul Whelan Memorial Scholarship**

- » Scholarship to increase awareness and encourage a new generation of high-achieving young people to take up the challenge of a career in technology