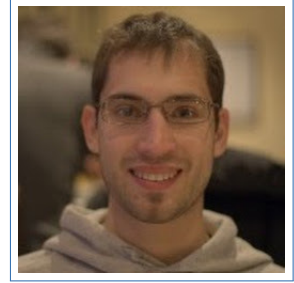# Alexandre Kandalintsev

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🖮 github.com/kopchik

Work Experience

Jul 2014 – Jan 2015 **Site Reliability Engineer**, *Google*, London, UK.
Support of AdWords/Double-click backends. Some highlights:
- Team-wide Service Level Objectives (SLO)
  - Defined objectives for supported projects
  - Created general guidelines for new projects
  - Designed and implemented SLO dashboard (*Python* and *JS/JQuery/NVD3*)
- Implemented script that exported job parameters to team dashboard (*Python*)
  - Queried database for running and recently terminated job
  - Parsed config files for periodic ("cron") jobs
  - Performed sanity checks: permission problems, duplicate jobs and other checks
- Maintained high SLO
  - Configured monitoring and alerting systems
  - Resolved production issues
- General duties:
  - Standardization and unification of production configuration
  - Review of proposed system designs
  - Performance analysis
  - System tunning

May 2013 – October 2014 **Internship**, *University of Luxembourg*, Luxembourg, `http://uni.lu/snt`.
- Studied and proposed solutions to reduce the performance interference between VMs
- The obtained results were submitted as a conference paper

Sep 2010 – Nov 2010 **Internship**, *University of Trento*, Italy, `http://www.napa-wine.eu/`.
NAPA-WINE is a peer-to-peer media streaming platform. My contribution is:
- Support for multi-channel media streams
- New GUI frontend

Nov 2007 – Jul 2010 **Senior Unix Administrator**, *Agava Company*, Moscow, Russia.
- Managed a team of four system administrators
- Solved the most complicated technical problems
- Consulted VIP-clients and provided them with personal support
- Gave trainings and seminars for system administrators on the following topics:
  - Apache web server course
  - Understanding Nginx and "10k clients" problem
  - Using tcpdump to watch traffic
  - DDoS defense methods
  - Basic database optimizing
  - Right backup strategies

Oct 2005 – Nov 2007	**Unix Administrator**, *Agava company*, Moscow, Russia. *Duties:* Standard requirements and duties of system administrator.
Feb 2005 – Oct 2005	**Junior Unix Administrator**, *Agava Company*, Moscow, Russia. *Duties:* Providing the first line full time technical support. Assembling, installing and maintaining equipment in data centers.

Education

2010 – now	**PhD candidate**, *Telecommunications*, University of Trento, Trento, Italy.
2006 – 2010	**MSc**, *Computer Science*, University of Russian Academy of Education, Moscow, Russia.
2003 – 2005	**BSs (3 semesters)**, *Computer Systems and Networks*, Bauman Moscow State Technical University, Moscow, Russia.

Selected Personal Projects

Qemu named interfaces: Assign meaningful names to tap interfaces: `https://github.com/kopchik/patches/blob/master/qemu_ifname.patch`

Virtual Machine Commander: a tool to orchestrate multiple virtual machines at once: `github.com/kopchik/vmc`

Parallel Downloader: downloads chunks in order so video files can be viewed before they completely downloaded: `github.com/kopchik/pdl`

IPv4/IPv6 proxy: enables IPv6 for legacy applications: `github.com/kopchik/proxy64`

Publications

A. Kandalintsev and R. Lo Cigno. A Behavioral First Order CPU Performance Model for Clouds' Management. In *Proc. of ICUMT*, October 3–5 2012.

A. Kandalintsev, R. Lo Cigno, and D. Kliazovich. Profiling Cloud Applications with Hardware Performance Counters. In *Proc. of ICOIN 2014*, 2014.

A. Kandalintsev, R. Lo Cigno, and D. Kliazovich. On-the-fly application profiling for better performance isolation (work-in-progress). 2015.

Skills

OS	Linux, FreeBSD
Programming	**Advanced:** Python **Intermediate:** shell scripting **Basic skills:** SQL, Java, JavaScript/LiveScript, C, C++
Tools	Valgrind, GDB, Qemu/KVM, perf, OProfile, OpenVpn, VCS and other tools

Languages

English	**fluent (C1)**
Russian	**native**

Hobbies

DIY electronics (microcontrollers, robot platforms and interaction with the real world)