# Andrey A. Smirnov

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CITIZENSHIP Russia

BIRTHDAY Apr 28th, 1982

**OBJECTIVE** Create remarkable service, application or technology. Improve my skills and improve

quality of software. Develop product that is useful.

TECHNICAL SKILLS Development team leadership: gathering requirements, writing technical documentation,

building up a team, establishing development process, quality control, testing and

deployment, configuration and support.

Experience in software development from backend code up to client-side, creating

and implementing architecture for scalable and high available systems.

Programming languages: C/C++, Python, Go, Ruby, PHP, JavaScript. Some others:

Pascal, Perl, UNIX shell scripting, Prolog, Assembler, ...

Frameworks: Twisted, Ruby on Rails, Boost.

Some keywords: PostgreSQL, MySQL, MS SQL; memcached, Redis, MemcacheDB;

ØMQ, beanstalkd, RabbitMQ; Linux, FreeBSD; Chef, Zabbix.

Professional EXPERIENCE

Independent Developer

November 2013 -

• Developing "the next big thing"in DevOps.

## Skype/Microsoft

Product Engineering Manager

January 2011 - October 2013

- Team leadership: managing async communications backend development.
- Architecture, design, specifications, communication with product team.
- Devlopment of fault-tolerant and high available backend system.
- Operations, infrastructure: monitoring, configuration management, distributed logging, etc.
- Launch of Skype Video Messaging feature.

Qik

Web Team Lead

## May 2009 - December 2010

- Development manager, building up effective team, establishing transparent development process.
- Qik.com: website, client API; metadata storage and processing; scalability. Website redesign and huge code refactoring.
- Qik Push Engine: delivery of object changes in real-time; subscription for filtered streams with complex conditions; managing notifications delivery in social graph.

### NetStream

Chief Technical Officer (Lead Developer) October 2005 – April 2009

- Hiring team, managing development process, teaching, lead developer.
- Customer relations, building requirements, quality control, project planning.
- Projects: Smotri.Com (custom skins, API), DELit.Net, AudioFind.Ru, Yanga!, MediaRight.
- MDC Instant Messenger MDC: server-side (Python, Twisted) and client-side (C++, Qt) parts.
- NetStream Media Server **NMS** (pyFMS): Flash broadcasting server (RTMP) with relaying support (much like Adobe FMS).
- SpamFighter: web service for spam and other unsolicited content filtering in real-time.

# Moscow State University

Instructor

July 2004 - May 2008

- Faculty of Computational Mathematics and Cybernetics
- Practical course for 2nd year students, including: C/C++, formal grammatics, parallel process programming in UNIX and object-oriented programming concepts.
- Took part in software development concerning Data Mining.

#### NetStream

Web Developer/System Administrator January 2003 – September 2005

- Design, development and operations for projects: DELit.Net, AudioFind and others.
- Going full-stack from coding up to hardware.

### eHouse

 $Web\ Developer/System\ Administrator$ 

February 2001 – June 2003

- Projects: Damochka (dating and entertainmnet service), RMP (music service), InOut (shop/cinema/restaraunt catalog), BannerBank (advertising banner meta-network)
- Full-text search engine *pointer* (like today's "sphinx").
- Apache module rendering city maps over HTTP (like eAtlas, Google Maps).
- "Artifical intelligence" module ("Boltun") for Damochka project.

#### Institute of philosophy, RAS

 $System\ Administrator$ 

January 2000 – January 2001

• Internet gateway support and other network services (UUCP, sendmail, Apache, etc.)

Conference Talks

Budapest Devops Meetup Nov 2013: My DevOps Experience and Projects

CONFERENCE TALKS (IN RUSSIAN)

Devops Meetup Moscow Jan 2013: aptly - Debian repository management

Stachka and RIT++ 2013: Effective teamwork

HighLoad++-2010: High-performance application development using Twisted/Python

RIW-2009: Caching in Web

HighLoad++-2009: Twisted – asynchronous network framework on top of Python

HighLoad++-2008: Web, caching amd memcached

RIT-2008: Flash broadcasting server (RTMP) written in Python or high-performance network services in Twisted

RIT: High Load-2008: Videocontent delivery to end-users

## Open-source Projects

aplty: Debian repository management system.

Redis Resharding Proxy: Redis re-sharding without service interruption.

txZMQ: ØMQ driver for Twisted.

**SpamFighter**: web service for spam and other unsolicited content filtering in real-time (for web applications).

FMSPy: RTMP server written in Python using Twisted Framework.

Other open-source activity at GitHub and Launchpad.

#### **EDUCATION**

### Moscow State University

Ph.D. student, Faculty of Computational Mathematics and Cybernetics 2004-2008

- Adviser: Professor Igor V. Mashechkin
- Area of study: high-performance computations
- Thesis proposal: Automatic checkpoint placement in MPI programs

M.S., Faculty of Computational Mathematics and Cybernetics, 1999-2004

- Department: Computer Systems Architecture
- Magna cum Laude
- Specialization: applied mathematics and system programming
- Thesis topic: Research and implementation of checkpointing subsystem for parallel programs in message-passing environments