

## Andrey A. Smirnov

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CITIZENSHIP	Russia	
BIRTHDAY	Apr 28th, 1982	
OBJECTIVE	Creating outstanding service (project) or technology. Improving own skills and software quality improvement.	
TECHNICAL SKILLS	<p>Development team leadership, turning business-level requirements into software architecture and specifications. Building strong development teams, developments process, quality control, QA and deployment, continous support.</p> <p>Software architecture, high load and high availability projects, scalability.</p> <p>Programming languages: C/C++, Python, Ruby, PHP, JavaScript. Less frequently I use: Pascal, Perl, UNIX shell scripting, Prolog, Assembler, ...</p> <p>Frameworks: Twisted, Ruby on Rails, Boost, jQuery, Prototype.</p> <p>RDBMS: PostgreSQL, MySQL, Microsoft SQL. Storage engines: memcached, MemcachedDB, Redis, etc.</p> <p>Server OS: Linux, FreeBSD.</p>	
PROFESSIONAL EXPERIENCE	<b>Skype</b> <i>Dev Web Team Lead</i> <b>Qik</b> <i>Web Team Lead</i> <b>NetStream</b> <i>Chief Technical Officer (Lead Developer)</i>	<b>January 2011 – Present</b> <b>May 2009 – December 2010</b> <b>October 2005 – April 2009</b> <ul style="list-style-type: none"><li>Team leadership, building strong team, adoption of transparent development process.</li><li><b>Qik.com:</b> web site, clients API and other Qik components; storing and handling Qik metadata; scaling; integrations with 3rd party services. Site re-design and code refactoring.</li><li><b>Qik Push Engine:</b> metadata changes real-time delivery; subscription for complex queries; handling events propagation over social relationships; M2M notifications; latency optimization.</li><li>Building development team, development leadership, teaching developers, active participation in code development.</li><li>Business negotiations, writing requirements specifications, architecture, development &amp; release planning.</li><li>Projects: <b>Smotri.Com</b> (custom skins, API), <b>DELit.Net</b>, <b>AudioFind.Ru</b>, <b>Yanga!</b>, <b>MediaRight</b>.</li><li>MDC Instant Messenger <b>MDC:</b> server-side (Python, Twisted) and client-side (C++, Qt) parts.</li></ul>

- 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**

- Architecture, development and support of: DELit.Net, AudioFind, etc.
- Complete hardware & software development.

## 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).
- "Artificial 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 (IN RUSSIAN)

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

**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*