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Dmitriy Lipin

Education

2006 - 2011 **Engineer's degree, Electrical and Electronics Engineering**, Orenburg State University.

Skills

Languages: Python, C, C++

Databases: MySQL, MongoDB, Redis

VCS: Git, Subversion

Adm.: GNU/Linux

Experience

- February 2008 - March 2010 **System Administrator, Engineer**, ЗАО "Инвестэлектросвязь" (Corbina), Orenburg.
- Configuration and supporting network devices (routers, switches) of broadcast access network (last-mile).
 - Implemented monitoring system using Nagios.
 - Develop system searching hosts by MAC-addresses.
- September 2009 - April 2013 **System Administrator, Developer**, Комитет обеспечения деятельности мировых судей, Orenburg.
- Creation of network infrastructure, e-mail, proxy, IM and web servers using virtualization (KVM).
 - Develop organization portal, integration of case processing system and created portal - <http://kodms.ru>.
 - Connect multiple regional offices to head office using VPN (IPsec in tunnel mode).
 - Installing of backup and monitoring systems.
- October 2011 - April 2012 **Developer**, Softline Company, Orenburg.
- Developing and supporting promotion web sites and <http://softline.ru/> sites.
 - Develop spelling correction service for recognized text using n-grams.
 - Implemented log collection and aggregation system for multiple sites to track application errors.
- April 2012 - April 2013 **Senior developer**, ООО "ГДЕЭТОТДОМ.РУ", Moscow.
- Develop framework designed for creation of backend services using Thrift as RPC framework. Service auto-discovery was implemented using Zookeeper.
 - Develop service that collect and aggregate statistics data. Recent data was stored in Redis, older data was transfered to Cassandra.
 - Implemented some backend component, worked on system infrastructure (designing, creation, monitoring).
- April 2013 - February 2014 **Lead developer**, ООО "ГДЕЭТОТДОМ.РУ", Moscow.
- Develop distributed file storage service using Openstack Swift as storage. Also develop service for making thumbnails on top of it.
 - Trying to remove bottlenecks from existed services to decrease response time.
 - Tutorship, trying to use Scrum for more fair planning.

- March 2014 - April 2015 **Senior developer, Yandex LLC, Saint Petersburg.**
- Developing event monitoring system for ten of thousands of hosts named Juggler.
 - Rewriting active checks (from monitoring nodes to clients) to C++ daemon. This made it possible to increase check frequency and system behavior in case of multiple unreachable clients.
 - Increase the number of events processed per seconds and reduce the number of monitoring nodes.
 - Setup continuous integration for project.
- April 2015 - June 2016 **Lead developer, Yandex LLC, Saint Petersburg.**
- Implementing notification subsystem that can send data to other services and users using provided by users notification rules.
 - Reduce delay between incoming event and resulting notification to tens of seconds or lower.
 - New leader election algorithm (Juggler consists of several fully replicated nodes, one of them can send notifications) using quantitative metrics to select best node.
 - Developing a library that can pick up optimal parameters for built-in flap detector working on event series.
- June 2016 - now **Team leader, Yandex LLC, Saint Petersburg.**
- Our team developing three projects: event monitoring system (Juggler), network monitoring system (Netmon) and system performing complete lifecycle management of physical servers (Wall-E), that automate typical tasks and automatically heal broken servers, detecting problems with data provided by first two systems.
 - Netmon (network monitoring system) is similar to Pingmesh. It consists of agents sending probes among themselves and backend that aggregates probe result sent by agents. It process more than 100k probes per second and detect network outages in ten of seconds.
 - Wall-E was switched to receive data directly from Juggler and Netmon to reduce problem detection delay to minutes and distinguish network outages from server outages.

Other

- Profile on GitHub - <https://github.com/blackwithwhite666>.
- I like to solve non-trivial problem and open source. I am trying to find possible solutions before doing anything and trying to measure results of my work.
- Languages - English, Russian.