

Konstantin Gredeskoul

Ex-CTO, Engineer, Problem Solver, Mentor, Leader, Entrepreneur, Hacker

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Expert Level	Advanced Level	Intermediate
<p>Ruby, Ruby on Rails, CSS, JavaScript, RSpec, Sinatra, Capistrano, Devise, Chef.</p> <p>Object oriented design, SOLID design, Java, SQL, services, micro-services, APIs, queues.</p> <p>Performance tuning code, PostgreSQL tuning.</p> <p>Finding bottlenecks in a saturated or highly utilized complex UNIX-based systems using USE method</p> <p>Database schema design (for productivity, and/or performance and scale)</p> <p>Process improvements: Agile, CI, CD, pairing, TDD, BDD.</p>	<p>ANSI C</p> <p>Redis, Nginx, Haproxy, pgBouncer, twemproxy, PostgreSQL, Solr, Memcached, RabbitMQ, Chef, Sidekiq, ElasticSearch, Linux, SmartOS, dTrace, statsd</p> <p>Services:</p> <p>NewRelic, Boundary, Circonus, PagerDuty, Pingdom, Heroku, Chef</p> <p>Development:</p> <p>TravisCI, git, github, RubyMine, Atom, TextMate, gitX, ShiftIt, zsh</p>	<p>C++</p> <p>Objective-C</p> <p>Modern JS libraries</p> <p>React</p> <p>Event-drive design</p> <p>AWS, EC2, BeanStalk</p> <p>Docker, Heroku</p>

Objective

At the moment I am looking for a **part-time (3d/week max) consulting engagement(s)** with high impact. I see three possible directions, based on my level of comfort and experience, and they are listed in order of preference.

1. Mentor (Ruby, RoR) pairing, teaching by example.
2. Expert Full-stack Ruby/Rails development
3. Senior DevOps Engineer or an Architect
4. Temporary VPE or CTO

Full-stack Ruby/Rails Engineer, Mentor

As an avid ruby aficionado since 2006, I love mentoring junior-, or intermediate-level developers, especially where I can help bring the entire team up a level, via sharing real world experience in architecture, and software development.

I can also be a senior contributor on an already "jelling" team that simply needs some extra power, as I love coding, have always remained an active coder, and have seen enough systems to be able to get up to speed quickly. My extensive software engineering background, from C/C++, Java, Perl, and Ruby give me the breadth of knowledge a lot of Ruby and Rails developers lack today. If desired, I can fix that – I love mentoring more junior engineers, and have done a lot of mentoring in the past. If there are engineers that need to be "pulled up" in their skillset, I would be happy to pair with them in addition to adding velocity to the project.

DevOps, Systems / Operations

This role involves looking at the system holistically, improving its uptime, performance, resilience, security, scalability and automation, or whatever is the current fire is. I filled the role of systems architect and DevOps engineer, designing the production layout of our application components across 300+ cloud nodes, managing and optimizing resources, working with our cloud vendor on both technical issues and contract negotiation. I built Wanelo's infrastructure using Chef from the very beginning, and the way it started, it remains until today. Complete automation allowed Wanelo to avoid hiring a dedicated Ops team.

Temporary VPE or CTO

Perhaps you need someone to step into your engineering org, work in the trenches, increase efficiency, team happiness, establish better practices, resolve conflicts, provide feedback, suggest how the team can improve, and so on. Or maybe you need someone to represent engineering, report on engineering progress to the current management, founders or the Board. These are the exact types of challenges that I am quite familiar with and very comfortable solving.

I have a special talent for spotting promising junior developers. One of my hires wrote:

"Konstantin was able to recognize what I have to contribute when I did not quite have the confidence to do so myself."

What have I done recently?

During the last four years, I worked as a CTO at Wanelo.com. There, I had the honor of forming and leading my personal "dream" engineering team, infused with the culture of collaboration, optimism, mastery of the craft, high quality, and care. Best practices such as pair programming and test-driven development, continuous deployment and complete automation supported the culture, but can always be challenged. In the end we cultivated a work environment with a phenomenally high productivity, low defect rate, and a happy, autonomous, engineers.

Here is one testimonial, highlighting combination of technical and organizational work I did while at Wanelo:

"I have worked with Konstantin and can say he is bar-none the most technically minded CTO and leader I have ever worked with. He has an amazing depth in system tuning, scaling architectures, Ruby programming, and database tuning.

His biggest contribution though was building a super well-oiled engineering team that is the dictionary definition of efficient, lean and driving a fully automated deployment infrastructure and enforcing best practices such as TDD in a pairing environment.

Overall Konstantin is a super passionate and creative technologist and leader, and would be a great asset to any team that wants to build an amazing tech org. I would fully work with him again in a heartbeat."

– Matt Camuto, Senior Engineer

Besides leading the team, I coded the entire time, working on the technology stack all the way from the browser to the deep data store backend. I did not work in iOS or Android, but I worked on nearly everything else.

Our small team of 12 covered a huge range of technologies and solutions: from iOS & Android mobile apps, a single ruby on rails application with many micro-services, a massive horizontally sharded PostgreSQL backend storing over 3B "saves" across 8K shards and eight postgresSQL databases. We also built an incredibly powerful "Data Feeds" application, from the beginning designed to be a standalone solution, it integrated with the primary application via asynchronous queueing and pub/sub using RabbitMQ.

I was instrumental to the design and implementation of the sharded solution, the data-feeds application, and almost all of the key initiatives. I frequently speak at conferences and user groups on how we did this, and the choices we made.

In the end, our backend was serving nearly *5,000–7,000 dynamic requests per second* from only eight app servers nodes, with an 80ms average latency. Our # of users to # of engineers ratio by far overtook Facebook's, even in the early days of the Internet giant. Our uptime was 99.99%. We had no security breaches. We did this all without Ops or QA teams, almost never "burning the midnight oil", or working on weekends.

Prior to that, and as a 3-time CTO of VC funded startups, I really enjoyed working with engineers, product managers, and business owners on engineering roadmaps, strategy, product inception and effort estimation, team culture, process, best practices, cloud, automation, and deployment. At the same time, I was involved in ruby/rails software development, code reviews, design reviews, solving issues with scalability and performance, adding fault tolerance and high availability, monitoring, choosing vendors, as well as negotiating vendor contracts.

Experience

CTO at Wanelo.com

February 2012 – November 2015 (3 years 9 months)

I joined Wanelo right after Deena's (CEO, and a Founder) initial seed round. Working at two jobs for a couple of weeks, I jumped into fixing site's continuous outages caused by its own popularity, and the unpreparedness of the first team of developers who worked on the first Wanelo "prototype". After applying sufficient amount of "duck tape" allowed the company a few months of breathing room, I focused on establishing high-performance engineering practices within the newly formed team. Closely following the Pivotal Process, my team agreed to try full-time pair-programming, in addition to more familiar practices of continuous integration, daily deployments, and TDD. In just under two months that followed, with the team of six, we replaced the old Java app – 90K lines of code, no tests – with a compact Rails app – 10K LOC including tests. We then brought live the new application, migrated data from MySQL to PostgreSQL,

and swapped Cloud vendors all at the same time. With just one hour of planned maintenance. Full story: <http://bit.ly/ONeXPb>

From the very beginning our cloud infrastructure is 100% automated with Chef (enterprise), and most of the software is covered by the automated tests. These two practices, introduced from the beginning enabled the company to avoid having to hire a dedicated Operations or QA teams. Cloud and CDN resources are now provisioned and configured by the developers, across a range of technologies and vendors. See the following presentation at RubyConf Australia 2015: <http://bit.ly/1M8VE1T>

Stack: Ruby, jRuby, Rails, PostgreSQL, Redis, the proxy, Nginx, haproxy, Solr, Memcached, Chef, Capistrano, Joyent Cloud, SmartOS, dTrace, Objective-C, iOS, Android, scaling, infrastructure automation.

Principal & Acting Director of Engineering at ModCloth

August 2010 – February 2012 (1 year 7 months)

ModCloth.com is an online clothing, accessories, and decor retailer recently featured as #2 fastest growing American company in the Inc 500 magazine <http://bit.ly/8ZGrur>

My role combined both technical leadership as well as management of a 20+ person development team. Additionally, responsible for directing the company from monolithic application towards SOA, helping the team adopt Solr search engine, automate deployment, and many other higher level initiatives such as test driven development with continuous integration, paired programming, short and frequent release cycles, migration to the cloud, and zero downtime releases.

Stack: RoR, MySQL, PostgreSQL, Capistrano, Redis, Memcached, RSpec, SmartOS/Solaris

CTO, Co-Founder at Drop In Media LLC

September 2008 – September 2010 (2 years 1 month)

Industry: SMS/MMS, billing, premium messaging, carrier relations, carrier application development. In-house developed enterprise platform supports high volume SMS/MMS messaging, plug-in architecture for business logic, as well as billing and routing functionality similar to that of an SMS aggregator.

Bootstrapped the company while working elsewhere part time. Later, transitioned into a full-time CTO role. In charge of all internal IT, Operations, Development, QA, technical integrations, evaluations, support for business development and marketing initiatives, as well as hiring and managing an internationally distributed team of developers for a company of about 10 people.

Stack: Java 1.6, Hibernate, Spring, JUnit, Linux, PostgreSQL 8 and 9

CTO at Infectious.com, Inc

June 2007 – May 2009 (2 years)

Infectious was an art community and an online store, with a crowd-sourced content model built around modern art printed on adhesive vinyl. All aspects of technology, from operations, IT, engineering and hiring.

Infectious.com Inc employed about 10 people. Stack: RoR, PostgreSQL, RSpec, Capistrano, Linux

Principal Engineer, Web Development at Blurb, Inc

March 2006– June 2007 (1 year 4 months)

Lead Blurb's web team (four-five people team) in launching one of the first e-commerce applications on Ruby on Rails in 2006, in under four months, including data migration from the prototype. Blurb.com received a Webby Award in 2007.

Stack: RoR, PostgreSQL, Java 1.6, Hibernate, Spring

Senior Software Developer at RedSeal Systems Inc

September 2005 – March 2006 (7 months)

Industry: network modelling and risk measurement, vulnerability software. Designed two-tier plug-in framework to support a variety of devices and communication protocols (SSH, FTP, SCP), as well as the threat reference library related features.

Stack: Java, Hibernate, PostgreSQL, Spring Framework, RMI, Client/ server, Swing, XML/XSD.

Systems Architect at Topica, Inc

April 1998 – August 2005 (7 years 5 months)

Industry: email list management software, marketing automation, ESP (email service provider). Large distributed application running across 50+ nodes, on top of a sharded database architecture, with a well- design web GUI based on Apache/mod_perl and perl5.

Stack: Oracle 8i, BEA Tuxedo, Perl5, Perl/XS, C, Apache, XML, Java, Hibernate, Verity, gcc, gdb, make, Linux.

Software Engineer at National Rails Corp, Australia

April 1995 – June 1996 (1 year 3 months)

Engineer on a distributed network component of the larger control system software rewrite at the largest commercial rail company in Australia. Automatic scanners installed across the nation registered trains, cars and individual containers as they were passing, and reported in real time location of each component to the central system.

Stack: BEA Tuxedo, C (daemons under AIX/UNIX), Oracle Pro*C, SQL, Pipes

Consultant / Software Developer at Cybersource Pty Ltd (Australia)

November 1994 – November 1995 (1 year 1 month)

Participated in several application development projects for Cybersource clients such as Gas and Fuel Corporation and Mental Health Research Institute. Work was mostly done in Visual Basic 3.0, which was used to develop a GUI front-end to Microsoft Access databases directly and via ODBC. Subsequently worked on behalf of Cybersource for various clients on long term projects, including National Rail Australia, National Mutual (AXA) Australia, etc.

Open Source Projects

Ruby Gem: Ventable

March 2013 to Present | <https://github.com/kigster/ventable>

Simple eventing gem that implements Observable pattern, but with more options, ability to group observers and wrap them in arbitrary blocks of code. For example, when a certain event fires, some observers may be called within a transaction context, while others maybe called outside of the transaction context.

Ruby Gem: Compositor

May 2013 to Present | <https://github.com/wanelo/compositor>

A Composite Design Pattern with a neat DSL for constructing trees of objects in order to render them as a Hash, and subsequently JSON. Used by Wanelo to generate all JSON API responses by compositing multiple objects together in API responses, converting to a plain ruby Hash (or an Array) and then using OJ gem to convert Hash to JSON.

Ruby Gem: LaserCutter & MakeABox.io website

September 2014 to Present | <https://github.com/kigster/laser-cutter>

<http://makeabox.io> is a website front-end to a ruby-gem laser-cutter, which generates PDF files with designs for notched boxes, meant to be "printed" on the laser-cutter to create beautiful boxes and enclosures. See this blog post for the details:

<http://kiguino.github.io/2014/11/21/announcing-laser-cutter-makeabox-dot-io.html>

Certifications

dTrace: Core Features & Performance Analysis

Joyent, March 2013

iPhone Development Bootcamp (Intermediate)

iPhone Development Bootcamp, February 2012

Volunteer Experience

Mentor at RailsBridge (Women in Technology)

January 2012 – Present (3 years 10 months)

Participated in several RailsBridge events assisting women learning Rails of various degree of prior engineering experience.

Mentor, Judge at IncubaUC, Santiago, Chile

September 2015 – Present (2 months)

I was a mentor at a five-day long GeekCamp in Santiago, Chile. I helped the organization to filter down from 43 entrants to 15 winning startups that will get grants and opportunity to come to the US.

Geek Camp is a twice yearly, three months long startup acceleration program that give student and professional founders the opportunity to be mentored by leading innovators from around the world to bring ideas from prototype to startup. Geek Camp is sponsored by Incuba UC the technology incubator at Universidad Católica de Chile (Chile's top university) and Austral Capital.

Languages

Russian, English

Publications

Tuning TUXEDO Kernel IPC Parameters

TUXEDO Notes, Hegetor, UK, 2002, Author.

"Tuning UNIX kernel parameters for fastest IPC communications on BEA Tuxedo version 5"

Hadoop, There It Isn't—A Startup Bucks The Big Data Consensus

ReadWrite, February 3, 2014, co-author

Education

Monash University

BSc (Honors), Pure Mathematics, Statistics, 1992 – 1995

Harkivs'kij Deržavnij Universitet im. I.P. Kotljarevskogo

BSc, Abstract Mathematics and Advanced Calculus, 1991 – 1992

"As a CTO Konstantin puts great focus in developing a healthy engineering culture that extends outside his organization. He is able to build and lead extremely efficient teams by focusing on team success and empowerment. Konstantin, not only has formidable CTO skills, but is also a superb engineer. He is constantly refining his preferred stack to increase productivity and scalability. He is one of the brightest people I have ever met. He is a swift thinker and is able to come up to speed and give invaluable feedback. He uses all those skills to lead his team into success. I have enjoyed working with him so much that I worked with him at two different companies."

Richard Millan, Sr. Software Engineer, Wanelo, reported to Konstantin at Wanelo.com

"I have worked with Konstantin and can say he is bar-none the most technically minded CTO and leader I have worker with. He has an amazing depth in system turning, scaling architectures and ruby programming and database tuning. His biggest contribution though was building a super well oiled engineering team that is the dictionary definition of efficient, lean and driving a fully automated deployment infrastructure and enforcing best practices such as TDD in a pairing environment. Overall Konstantin is a super passionate and creating technologist and leader and would be a great asset to any team that wants to build an amazing tech org. I would fully work with him again in a heart beat. "

Matthew Camuto, Sr. Software Engineer, Wanelo, reported to Konstantin at Wanelo.com

"Over and over, I've seen Konstantin focus not only on technical architecture & excellence, but on growing the people on his team. He continually works to hone his team's best practices, with the goal of making his team & company an incredible place to work. Whether it's carefully preparing to deliver actionable feedback, or charting next steps on career paths, or matching passions & skills with projects, Konstantin is relentlessly striving to help his team grow, and his company thrive."

Marcy Swenson, Executive Coach, StartupHappiness.com, was an executive coach to Konstantin

"Konstantin's exceptionally sharp, innovative and a great technical mentor. As a manager he fosters employee growth by empowering them to take ownership. Most importantly, he knows how to build fun and efficient teams with a collaborative, can-do culture."

Rob Harrison, Senior Data Scientist, Wanelo, reported to Konstantin at Wanelo.com

"Not only is Konstantin a Ruby Expert – that goes without saying – he is a great team leader. He takes the right risks, is willing to listen to other's point of view, and encourages advancement and progress of the individuals on his team. He really stays on top of where the Rails Community is going as well – and is a go- to guy if you need a suggestion on which tools are the right ones to use. Because of this (in fact, because of all that I mentioned above), we saw tremendous speed and performance improvements in our production environment and a clear path to a better development environment as well. It was an absolute pleasure working with him and I hope our paths cross again in the future."

Adam Medeiros, reported to Konstantin at ModCloth

"Through my experience as a developer, I've seen several developers excel at what they are commonly asked for: deliver code. But Konstantin is a case where I did not only realize the tech guru he is, but I also acknowledged his leadership and great sense of project accomplishment. He is one of the few people I think, a company is not only lucky to have him, but he is necessary if they want to have a leader which will improve the tech unit's performance as a group. Personally, I really enjoyed having Konstantin as a leader"

Ignacio De La Madrid, worked indirectly for Konstantin at ModCloth

"Codes faster than lightning. I feel extremely lucky to work with Konstantin at Drop in Media. His skill with software architecture, development and team leadership is invaluable. He has a keen mind and a sharp intellect which he proves time and again while tackling difficult problems. His most valuable asset is his motivation and drive which is an inspiration and ensures the job gets finished."

Tony Rose, worked directly with Konstantin at Drop In Media LLC

"It goes without saying that Konstantin is a talented engineer with deep expertise in a broad range of technologies. He built the foundation of Infectious and did everything technical we needed. He was a swiss army knife CTO who was hands on and great at getting stuff done."

But he is more than a great technologist. He has incredibly good product sensibility, an eye for well designed UI and passion for creating quality. He contributed heavily to the strategy with a very pragmatic approach, balancing business needs and technical vision. Konstantin is a solid leader and I look forward to working with him again in the future."

Tim Roberts, managed Konstantin at Infectious.com, Inc

"Konstantin is one of those people with a great ability to get things done. He is able to balance business needs and technical scale in a way that makes him a great team member at a startup. He was instrumental in getting Blurb's initial e-commerce store in Ruby On Rails off the ground, designing key components of the back and front end, as well as putting in place systems and agile processes for deployment to production."

Greg Dotson, managed Konstantin at Blurb, Inc

"Konstantin is an extremely smart, intelligent and decent fellow. Konstantin worked at Redseal during a formative period where the product evolved from prototype status towards being a full enterprise product, and as such he had to design and build large chunks of the system. He attacked this with his usual enthusiasm and vigor. Konstantin is an excellent and fun person to work with and I wouldn't hesitate to work with him again!"

Fiid Williams, worked directly with Konstantin at RedSeal Systems Inc

"There are those people who you work with that will forever be a positive influence on your professional life. Konstantin is one of those people. Not only is he the must have person you want on your team when tackling the Big Problem, but he makes it seem easy and does it with grace. His skill in technology is only matched by his skill as a musician. A leader for the digital renaissance age."

Matt Levy, worked indirectly for Konstantin at Topica, Inc

"Konstantin is a top-notch technical leader. He is as smart as they come, and is exactly the type of go-to, get- it-done guy you want on your team. He is much more than an engineer – he can help work through tough technical and business problems, and brings tons of creativity to every situation. I'd jump on the opportunity to work with him again!"

John Berkley, worked with Konstantin at Topica, Inc

"Konstantin is a brilliant systems architect. He always found the fastest and most elegant approach to solve our technical challenges. He was a pillar at Topica and fundamental to many of our achievements. I hope I get to work with Konstantin again in the future..."

Ariel Poler, managed Konstantin indirectly at Topica, Inc

"Konstantin was definitely the go-to person at Topica. The success of Topica's application is mainly due to his design and coding efforts. He would take on the most challenging projects and delivery them on time and of exceptionally high quality. I can not speak any higher of Konstantin's technical abilities."

Li Sen, managed Konstantin at Topica, Inc

"Konstantin's basic architecture decisions have served Topica's expanding needs for 5 years. He is brilliant and opinionated, and I have learned a lot by working with him."

J. David Lowe, worked directly with Konstantin at Topica, Inc

"Konstantin was a very key person on the project. He provided expertise across a range of technologies and was instrumental in getting the project across the line."

Alex Atran, worked directly with Konstantin at National Rails Corp, Australia

"In the mid-90s, the Web became the preferred method of building and deploying business applications. Konstantin was the first among our staff to recognise this. His vision, coupled with his immense technical talent, allowed us to leapfrog many competitors into this space. I would commend Konstantin for any project, no matter how challenging."

Con Zymaris, managed Konstantin at Cybersource Pty Ltd (Australia)