

Konstantin Gredeskoul

Principal/Staff Software Engineer

Startup CTO (4x), Tech Leadership, Team Building, Conference Speaker, Open Source Contributor

Results-driven professional with expertise in scaling solutions and delivering exponential value through strategic optimization. Committed to continuous learning and leveraging emerging technologies, including AI, to solve complex challenges and drive innovation. Focused on high-impact initiatives that transform business outcomes. Excellent communication skills, verbal and written, easily translating complex technical insights between engineers, PMs, executives, and customers alike. Building consensus and aligning priorities across teams is key to the success on any project.

SUMMARY

Creative yet methodical problem-solver with a strong foundation in mathematics and statistics, I analyze technical challenges methodically, breaking it up into smaller parts, brainstorming with my team about it all, with openness, and with an invitation to go beyond convention. I'm comfortable moving fluidly between levels of abstraction—zooming out to shape strategy and architecture, then drilling into the smallest detail to diagnose or refine—and back again. Whether collaborating or working independently, I prioritize clean, maintainable code and robust solutions delivered iteratively and quickly, supported by high test coverage, clear documentation, and practical design.

I focus on reducing risk through strategies such as gradual rollouts, A/B testing, dogfooding, and canary deployments, while continuously improving developer experience. By streamlining onboarding, accelerating CI builds, and removing friction from deployments, I help teams move faster with confidence. In critical moments, I shift into “turbo mode,” leveraging observability to diagnose issues within minutes and driving swift, effective resolutions that protect users and restore stability.

CAREER HIGHLIGHTS

Transformational technical leader with two decades of building distributed scalable transactional systems serving tens of millions of users. 4x CTO, [led complete system rewrite \(90K LOC Java → 10K LOC Rails in 2 months\)](#), and, immediately after that scaled the platform 100x to 5K req/sec with just six engineers pairing full-time, while maintaining 99.99% uptime four years in a row. At another company, prevented a [potential extended PostgreSQL downtime](#) due to transaction wraparound on a 27TB PostgreSQL table. Expert Rubyist, with over 50 Ruby Gems on [rubygems.org](#) and a **cumulative 200M downloads**.

Proven track record solving complex problems and leading by example:

As a Systems Architect, chose the technologies and architected one of the largest distributed email delivery platforms of its time (¼M msgs/day) before the Cloud even existed. At Homebase, within the first two weeks completely fixed daily PostgreSQL crashes during peak hours. At HealthSherpa achieved 100% uptime during critical ACA open enrollment period (handling 10x traffic jump overnight). Built a fully fault-tolerant system supporting 25 million active users with near-zero pagerduty alerts. [Introduced transformative engineering practices](#) — full-time pair programming, TDD, stand-ups, retrospectives at Wanelo — creating self-managing, ultra-efficient, and high-performing team, losing just one engineer in 3.5 years. Conducted over 500 interviews, including bootcamp graduates, hiring top talent into the team, some of whom were recognized in [Forbes Under 30 honorees](#).

Industry thought leader with an eye for a talent:

Co-created original open source Ruby rules for Bazel mono-repos, inspiring current industry standard. Enthusiastic self-learner, mentor, and speaker. Volunteered on multiple occasions to teach Rails (RailsBridge), was invited to speak at several local and international conferences, (e.g. [RubyConf Australia](#), [Silicon Valley PostgreSQL](#), Ruby Mexico, etc). Scaling on top of PostgreSQL presentation has ¼M cumulative views on [SlideShare](#). Judged and advised LATAM startups at a “Geek Camp” — startup incubator in Santiago, Chile, run by [Astral Capital](#).

EDUCATION

Monash University, Australia

**Bachelor of Science w/Honors
Mathematics & Statistics**

Summa Cum Laude, Top 1%

[Published Graduate Thesis](#)



Kharkov State University, Ukraine

**Advanced Mathematics,
Calculus & Analysis**

**Ukraine National Mathematics
Olympiad Winner**



SKILL PROFICIENCY

10 POINTS IS EXPERT LEVEL

**Systems Thinking & Architecture
Short and Long Term Vision**

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Scaling to Manage Spikes in Concurrency

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PostgreSQL, Low-level Tuning, Sharding

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DevOps, Cloud, Security, Terraform

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Ruby, Ruby on Rails, E-Commerce

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Unixes, BASH/ZSH, Docker, IPCs

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C (99) / C++ (2011)

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JavaScript, ECMA'19, NodeJS 22

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AI Prompt Engineering

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TypeScript, Node, JS (ECMA'19)

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ReactJS, JSX

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ML, Deep Learning, Neural Nets

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Python / Python 3

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PROFESSIONAL EXPERIENCE

**Academia.edu, Staff Software Engineer**

08/2024 — present

Halved CI build times (15→7 mins, ran 100's of times a day) via introducing Knapsack, CI/CD image build automation with Terraform & AWS CodeBuild that included all ruby and javascript dependencies. Built a one-command dev environment setup, cutting onboarding from weeks to hours. Diagnosed problematic practices, and led overhaul of Datadog metrics strategy, authoring an open-source Ruby gem for custom metric validation—showcasing cross-team leadership and community impact. Taught the team about Ruby Concurrency, and redesigned & delivered card expiration warning email system.

**HealthSherpa, Principal Software Engineer** 02/2022 — 03/2024

Identified and systematically eliminated single points of failure across backend systems, enabling HealthSherpa to achieve its first-ever 100% uptime during open enrollment—a critical milestone for a platform serving over 2/3 of ACA-eligible Americans when traffic spikes 10x overnight to 100K requests per minute. I streamlined developer onboarding from nearly a week down to one hour through comprehensive automation, and replaced our fragmented observability system with a unified Datadog implementation that delivered actionable insights into performance bottlenecks and system reliability. Beyond the infrastructure work, I contributed to team knowledge through nearly ten internal technical presentations covering Ruby concurrency, PostgreSQL optimization, and scalability patterns.

**FOSSA, Staff Software Engineer**

09/2020 — 09/2021

Averted catastrophic XID wraparound on a 27TB PostgreSQL DB by migrating to multi-AZ RDS and completing emergency vacuum under 2-month deadline. Cut AWS costs, compacted DB schema, and added unique job support to Faktory's NodeJS client—mastering TypeScript/Kubernetes to deliver production-grade features fast.

**Coinbase, Staff Software Engineer (L6)**

06/2019 — 02/2020

Unified Ruby & Go into a Bazel mono-repo, creating the first open-source [rules_ruby](#) for Bazel, to enable hermetic Ruby builds/tests. Pioneered Bazel support for Ruby using Starlark, laying the groundwork for the current [Bazel/Ruby](#) integration that currently is part of Bazel Contrib. Was placed into developer productivity infrastructure group, which wasn't the position I interviewed for, and I wasn't able to negotiate a better placement that utilizes my skillset.

**Homebase, Infrastructure Architect**

08/2017 — 01/2019

Stepped in during critical instability caused by daily peak traffic, leading cross-functional efforts that restored 99.99% uptime through strategic DB read/write splitting (Makara) and system hardening. Spearheaded full AWS infrastructure rebuild using Chef and Docker, cutting cloud spend by 50%. Drove major Ruby performance gains (3x memory reduction, optimized GC/concurrency), introduced zero-downtime deploys, and accelerated CI by 2-3x. Empowered a high-performing team and built systems that let them sleep soundly again, and could be scaled another 10x without rewrites.

**Wanelo.com, CTO & VPE**

12/2011 — 01/2016

Joined as employee #3 and built the Engineering team from scratch to 25 employees. Collaborated with the founding engineers in rewriting the entire app in Rails. With 6 engineers, we rebuilt it in 2 months, creating 10x less code than Java, and 99% test coverage. Over the following six month, [traffic jumped 100x](#).

Established CI/CD, TDD, continuous deployment, and pairing culture. Conducted over 1K interviews, and had just one person leave in 3.5 years. Invented a new distributed design pattern based on HAProxy for routing and auto-recovery—featured in my RubyConf talk "[DevOps Without the Ops](#)."

The application reached top-10 Apple Store rankings multiple times, won [TechCrunch Disrupt](#), and handled 10K requests/second through heavily optimized multi-threaded Puma processes running on Joyent Cloud.

OPEN SOURCE CONTRIBUTIONS

This sidebar features several open source projects that demonstrate a wide range of skills, while at the same time showing the code I wrote in the past, proving the ability to deliver and finish a project, whether it's an MVP, an online free tool, or a game.

gomoku-ansi-c (3 ★)

ANSI Terminal game with a pretty strong AI player that you can build & play on a MacOS.

simple-feed (334 ★)

Ruby gem that uses Redis shards to implement O(1) read time for a social feed of any kind.

The next set of gems are simply either popular, or unusual, or interesting in their own right.

puma-daemon (38 ★)**cmake-project-template (923 ★)****bashmatic (163 ★)****sym (138 ★)****<https://makeabox.io>**

Free online tool for creating vector drawings for laser-cutting 3D enclosures

<https://bashmatic.dev>

Marketing site for the Bashmatic framework.

CONSULTING

Between 2015 and 2018 I ran a consultancy through the newly founded company ReinventONE: <https://reinvent.one>.

The contracts typically covered urgent issues such as scalability, lowering latency of the web pages or API responses, adding observability, vertical and horizontal sharding, multi-AZ migrations, event-driven data modeling, etc.

The clients included:

- [Flow Investor Portal](#)
- [HIRED.com](#)
- [JoinHomebase.com](#)
- [Reflektive, Inc](#)
- [Returnly.com](#)
- [GoShippo.com](#)
- [Butter.com](#)

SPOKEN LANGUAGES

- ENGLISH
- RUSSIAN
- SPANISH (Beginner)

REFERENCES

Available on request