Eugene Bolshakov

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Summary

I am a product-minded software engineer with experience in full-stack software development for the web, devops, technical leadership, hiring, mentoring and remote work.

I've worked on both greenfield projects and legacy systems, as a single developer and as part of a team, remotely and on-site, in early stage start-ups and established large corporations. I believe I'm capable of learning new things and finding my way around a complex system quickly, coming up with pragmatic, simple solutions where possible and managing complexity when it's inevitable, communicating effectively with both non-tech and tech people.

Some of the technologies, tools and techniques that I've used extensively: elixir, phoenix, ruby, rails, postgres, docker, terraform, AWS, TDD, CI/CD.

What I'm looking for

I'm looking for opportunities that would provide the two things that motivate me the most: using tech to solve meaningful problems and learning, especially from people who I work with. Ideally I'd like to work on projects that align with the "Tech for Good" principles: http://www.techforgood.global/principles/. I'm also looking for remote work with flexible hours (although I'd be happy to occasionally work on-site and attend meetings in the UK).

How I work

Teams work differently and the way I work is determined by the way my teammates work, but generally I follow these guidelines:

- Be comfortable to start with a loosely defined idea, work with teammates to work out the details, scope and plan the work.
- Identify and challenge the assumptions behind the idea / task to determine if it's the right thing to do based on the high level priorities.
- Gather data, formulate hypotheses in relation to the task and determine ways to track the effects of the planned changes to prove them.
- Break bigger pieces of work down, use story mapping when appropriate to determine the scope of iterations.
- Use communication methods (real-time or asynchronously) appropriate to the task.
- Write down summaries of progress and thinking on the task to provide updates to stakeholders and for future reference.

- Work on the code in small incremental changes, integrate early, use feature flags if necessary.
- Always add automated tests, maintain the "Test Pyramid".
- Do refactoring of the existing code and tests as part of my day-to-day work, be deliberate about accumulating technical debt.
- Seek and provide feedback on the work my teammates and I are doing.
- Ensure there's a solid base for CI/CD, like reasonable build times, automated deployments and observability.
- Be mindful of post-deployment work: monitoring, data collection to track the effects of the change, clean-up (e.g. feature flags), retrospective, etc.

Past work

Dec 2024 - present: Senior Software Engineer at The Mobility Factory SCE. Remote

The Mobility Factory or TMF is a platform cooperative that develops a solution for shared mobility. The platform is used by about two dozen of cooperatives spread across a few European countries that provide access to shared vehicles to their members.

Those cooperatives vary in size, services that they provide and their operation style which is why the small team at TMF had to build a flexible and feature-rich platform. My role is to work with the tech team to find ways to improve the quality and stability of the platform and to improve developer productivity.

Examples of projects that I worked on included introduction of infrastructure-as-code tool to manage the servers that host the platform; setting up an efficient system and process for responding to incidents for developers on the on-call rota; developing tech strategy in preparation for expansion of the tech team.

Tech stack includes: Dart, Flutter, Firebase, Docker, Terraform, Ansible.

Dec 2021 - Dec 2024: Product Engineer at Teller. London, UK

Teller provides an API that US fintechs can use to access banking data of their users. There is no analogue of OpenBanking in the US, so there is no standard way for 3rd parties to access banking data. Teller provides a solution by reverse-engineering the internal APIs that mobile banking apps use and integrates them into a simple, reliable and developer-friendly API that is trusted by some big names like Ramp, Pipe, Brex and others.

Alongside other product engineers I worked on the main product (Teller banking API), integrations with financial institutions (At the time Teller supported $>$ 5k institutions), internal tooling, infrastructure and new products. The tech stack included Elixir, Phoenix, Postgres, Go, AWS, Terraform.

June 2021 - Dec 2021: Senior Software Engineer at BBC. London, UK

When I joined the BBC, they were in the process of migrating their entire website to the cloud and a new system called WebCore was being developed for that purpose. I worked on a small team that was responsible for the routing and resiliency layer of that new system.

The purpose of the system was routing incoming traffic to either the new system or one of the previous legacy systems that had not been migrated yet. It also took care of performance and resiliency by providing caching, circuit breakers and fallbacks for upstream layers. Finally it contained some shared functionality that would otherwise needed to be implemented in every upstream

layer, which made development more efficient. Given its role, as basically the gateway to the BBC website, the layer processed tens of thousands of requests per second during peak times.

I worked on implementing new features, investigating and fixing performance issues, improving documentation, code quality and development practices adopted by the team.

The tech stack consisted of:

- A cluster of Elixir apps
- Infrastructure configuration using AWS CloudFormation
- Custom organisation-wide CI/CD pipeline system
- Telemetry/StatsD/AWS CloudWatch/Grafana for metrics and monitoring
- Custom setup utilising Vegeta for performance testing

July 2019 - June 2021: Senior Software Engineer at Good Club (later Dizzie). London, UK

Good Club / Dizzie was an online supermarket aiming to make sustainable groceries accessible to more people. We entered a new phase of rapid growth when the Covid-19 pandemic broke out and many more customers started shopping online. We had to introduce new operational capacity and quickly scale it to meet the growing demand. We subsequently introduced a growing range of products in re-usable containers that would be delivered to and collected from customers. I worked alongside the CTO as part of the growing tech team on the tech that powered our e-commerce site and warehouse operations.

The tech stack consisted of:

- Elixir/Phoenix monolith hosted on Heroku
- Oban for background jobs
- Lightweight frontend built with StimulusJS, Turobolinks and TailwindCSS
- AWS RDS Postgres database
- Elasticsearch
- CircleCI
- Redash for data analysis

Most recent challenges:

- Migrating from a dropshipping arrangement to our own warehouse and building the tech to support the operations from scratch in a short time frame while keeping the storefront operational.
- Launching a 'zero waste' offering: shipping all orders in reusable boxes and selling a range of products in reusable containers to reduce packaging waste.
- Work on tracking and improving efficiency of our warehouse operations.

2009 - Jan 2019: Senior Software Engineer at Loco2 (now RailEurope). London, UK

RailEurope is an online journey planner and booking service for train and bus travel in the UK and Europe. I had been with the business from the very early days when I was the only developer working on the prototype, through multiple stages of growth, acquisition by SNCF (the French rail operator) in 2017 and subsequent expansion of the team.

Prior to acquisition Loco2 had been a small team with a strong sense of ownership of all aspects of the product: everyone had a wide range of responsibilities and a say on decisions. We've built a culture of transparency, honesty and trust that together with lightweight but solid processes enabled both autonomy and effective collaboration. All developers had access to all data, communicated directly with customers and worked on and deployed all parts of the tech stack. The team was (and still is) distributed, optimised for remote work and all developers worked remotely (in the UK and Europe).

The tech stack consisted of:

- Monolith Rails app (which evolved from the original prototype and was kept up to date with the recent versions of ruby, rails and other dependencies).
- Ruby module for routing and interacting with booking operator's APIs (often SOAP, some REST).
- iOS (Swift) and Android (Kotlin) apps which are thin wrappers around WebView.
- React/TypeScript frontend: we've started to migrate the original Rails/JQuery MPA to a React SPA.
- Hosting on AWS using docker and ECS with autoscaling, Postgres RDS, Redis ElastiCache.
- Infrastructure as code using Terraform.
- Continuous integration using TravisCI (automated tests, visual regression testing, docker builds).
- Continuous deployment: a push to master in git triggers a build and automatic deployment to production on success.
- Various tools for data analysis: Librato, Papertrail, Mixpanel, Blazer.

Some of the challenges we've had to address while building Loco2 (I have either

worked on or have been involved in these):

- Prioritisation and focus to get things done while being a small team.
- Integration of (often ancient) 3rd party booking APIs.
- Maintaining large dataset of station data.
- PCI DSS compliance and payment fraud.
- Minimising operations overhead (cloud hosting, monitoring, scaling, CD).
- I18n & L10n (multiple languages and currencies).
- Supporting affiliate partners (API, tracking and reporting for affiliates).
- Acquisition due diligence.
- Expanding the team while maintaining productivity.

More recently I worked on leading backend projects, maintaining the infrastructure, onboarding and mentoring new developers.

2004 - Present: Remote contract work

I've worked on many projects as a remote contractor. Some examples:

Shopify I've been contracted by Shopify to build several apps to help their customers migrate data from other platforms (Magento, Wordpress, eBay, etc) to Shopify. These were implemented as a single modular Rails app hosted on Heroku.

Arts Organisations in Australia I've worked on websites for a few non-profit arts organisations based in Australia, including The Australian Center for Photography, which is the country's leading arts centre for the exhibition and publication of, and education in photo-based practice and INAPAC which is the representative body for Performing Arts Centers in NSW and ACT, Australia.

These projects required functionality like content management, e-Commerce, workshop enrolments management, events calendar, data sharing and reporting. In terms of technology these were Rails apps hosted on Linux VPS.

Flight Free UK - Volunteer Flight Free UK is a campaign which asks people to pledge to stay grounded for a year in order to reduce their carbon footprint, re-discover the joys of overland travel, and start to shift the social norm away from aviation.

I helped build the website at https://flightfree.co.uk which is a static website made using Markdown, Middleman, TailwindCSS, NetlifyCMS and hosted on Netlify. The source code is available on Github: https://github.com/Flight-Free-UK/flight_free_uk_website

Bamboo Turtle - Volunteer Bamboo Turtle is a zero-waste shop (that sells unpackaged goods, many by weight) in Letchworth. I've worked on a small app to sync stock between the POS system (ePosNow) used in the shop and their

e-commerce website (Wordpress/WooCommerce). The app is written in Ruby, uses Airtable and is deployed to AWS lambda using Serverless framework. The code is available on github: https://github.com/bamboo-turtle/sync

Other projects I've worked on many smaller projects for clients from all over the world. Some feedback on those can be found here: https://www.freelancer.com/u/EugeneB

2007 - 2009: Senior Software Developer / CTO at AuctionPAL. Boston, MA, USA

AuctionPAL was a start-up based in Boston that aimed to simplify selling on online platforms. I worked as part of a distributed team first remotely and then on-site. In terms of technology there were several Rails front-end apps and a Java backend initially hosted on dedicated Linux servers. The system was integrated with various 3rd party e-Commerce and shipping APIs, enabled inventory management including OCR to process manifests from suppliers.

My role involved working on the Rails apps, collaborating with the marketing department, managing the on-site development team. Eventually I took over maintenance of the entire codebase, worked on simplifying production and development infrastructure and automating routine processes.

2006 - 2007 Web Developer at SPN Group. St Petersburg, Russia

SPN Group was a publishing house that produced several magazines including the Russian version of the "Rolling Stone". I've worked as part of the web development team on a PHP framework / content management system behind the online versions of the magazines.

Code samples

Unfortunately I don't have much real code that I could share, but here are some small toy projects that I worked on:

- https://github.com/eugenebolshakov/muster - a clone of game 2048 in Elixir/Phoenix LiveView.
- https://github.com/eugenebolshakov/raspberry_pi_test_task - a (fairly simple) coding challenge in Ruby that I did as part of an interview process.

Education

CS Degree in "Automated Data Processing and Control Systems" from Astrakhan State Technical University (Russia), 2006.

Background

I'm originally from Russia, but have been living in the UK since 2012 and have dual citizenship: British and Russian. I currently live in Tunbridge Wells, Kent.