Andrei Petrov

Full-Stack Engineer

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Open to remote work Open to relocation

Summary

Full-Stack Engineer with 10 years of experience building digital products across fintech, telecom, retail, and other industries, using TypeScript, React, Next.js, Node.js, PHP, and more.

I make things that work when people sleep, laugh, and gaze at the stars. Web apps, APIs, and systems powering products and teams. Having worked in highly dynamic environments on systems reaching 1 000 000s of users, I understand the stack from ideation, through the browser, and down to the hardware. I connect business needs and technical solutions, openly discussing decisions and trade-offs.

My personal interests are exploring operating system design, and practicing photography; the former gets me thinking of new ways to use computers to solve everyday problems, and the latter reminds to look beyond the screen.

It is easy to reach me by email or Telegram. Let's see how I can help your team.

Experience

Sumsub — May 2025–Oct 2026

Full-Stack Engineer | TypeScript, React, Node.js, Next.js, Redis, GraphQL, WordPress — *London, UK (remote)*

- Sumsub verifies 2 000 000+ users and companies daily and blocks fraud in 220+ countries using adaptive AI.
- ***Role outline*** Help marketing teams reach the goal of $100M in revenue from online campaigns.
- ***Key tasks*** Create interactive demos, product pages, and form workflows; integrate the website with HubSpot and Salesforce; implement A/B tests and track website usage to increase conversion rates in critical user flows; keep the website available and secure in the face of constant DDoS attacks and hacking attempts.
  - ***Key results*** Improved throughput by 1 900%, reducing uptime issues at peak hours to zero;
  - Mitigated 300+ critical vulnerabilities and external and insider threats, reducing the risk of customer data loss;
  - Saved $2 000+ per month by preventing API abuse.

Orion Innovation — Nov 2017–Apr 2025

Lead Engineer | Aug 2021– | SIP, C++, Java, Open Liberty, TypeScript, React, Next.js — *Belgrade, Serbia (remote)*

- Orion Innovation is a technology partner, outsourcing engineering teams as if they were working in-house.
- ***Role outline*** Deliver a high-performance call center application for the U.S. Social Security Administration to reduce callers' long wait times, targeting 100 000 parallel calls.
- ***Key tasks*** Audit security and software licenses for compliance; create tools for online support; scale the team from 5 to 30 and bring everyone up to speed; coordinate progress with the customer.
  - ***Key results*** Investigated 1 500+ security vulnerabilities and audited licenses of thousands of third-party software components, escalating issues to prevent exploits in production and resolving GPL issues to protect a multi-million-dollar agreement;
  - Created a Next.js application with terminal and VNC support to manage the system remotely, allowing engineers to perform maintenance in a timely manner without traveling on-site;
  - Managed knowledge transfer for 20+ software components implemented in different stacks, from C++ to Java and the web, helping new teammates grasp a complex project in half the time.

Front-End Engineer | Jun 2019–Aug 2021 | TypeScript, React, SCSS, PostgreSQL, Python, Django

- Shift4, previously Revel Systems, provides a point-of-sale solution that helps hospitality businesses grow from a single iPad to thousands of locations across the U.S.
- ***Role outline*** *Prior to my promotion,* I developed new features for cloud applications in telecom and retail. Here, I joined the product team to help modernize a fast-growing platform.
- ***Key tasks*** Implement new micro-frontends for upcoming features; port legacy parts from Backbone to React to improve the experience and pace; expand the design system with new UI components to speed up development.
  - ***Key result*** Created a UI and a framework for building reports to seamlessly handle 100 000+ rows in the browser, giving customers with many installations complete insight into their systems and enabling managers to close shifts three times faster.

Front-End Engineer | Nov 2017–Jun 2019 | JavaScript, WebRTC, WebSockets

- JavaScript library powering 95 000+ video conferences per minute in Avaya Spaces. Used by developers to add calling and collaboration functions to their applications, including emergency operators' interfaces.
- ***Key tasks*** Develop features in parity with sister projects for desktop and mobile application development; maintain the release schedule and communicate with other teams about new or deprecated features; manage developer relations, help developers adopt the library and efficiently utilize cloud resources.
  - ***Key results*** Ported 120 000 SLOC of JavaScript to the Safari browser before the official WebRTC-ready version was released, expanding browser coverage and helping internal teams adopt it faster;
  - Implemented a critical feature to adjust audio and video bandwidth based on network conditions. Dynamic selection of available call quality helped users converse uninterrupted;
  - Integrated Google's machine learning library for face detection and background separation during video streaming, protecting people's privacy.

Convergent Media Group **Jul 2015–Nov 2017**

Back-End Engineer | PHP, Symfony Framework, React, PostgreSQL, MongoDB *Pula, Croatia (remote)*

- CMG is an all-round digital agency helping brands like Philips sell through strategy, marketing, and content.
- ***Role outline*** Increase capacity to launch new web and mobile projects for international product marketing.
- ***Key tasks*** Develop the internal CMS powering both web and mobile apps; run experiments to extend the available technology with real-time communications; create proposals to secure new projects in competitive bidding.
  - ***Key result*** Led a cross-functional team of 5 on a 6-month campaign with hard monthly deadlines. The project included a social networking website with a user-generated photo feed, mini-games, mailing lists, integration with a video-streaming platform, and 20 000 daily active users. Delivered on time, the project was commercially successful and secured a new regular client for the agency.

Prior Work 2009–2015

Studio T&G **2013–2015**

Back-End Engineer | PHP, Java, Bouncy Castle, MySQL, MongoDB

- A platform to streamline small business grant applications and distribution.
  - ***Key result*** Created a Java application to securely exchange personal data with government systems, reducing grant application times from days to minutes.

X5 Retail Group N. V. **2010–2013**

Network Engineer | PHP, Zend Framework, Microsoft SQL Server, Microsoft IIS

- A leading retailer with 30,000+ stores serving millions of customers daily.
  - ***Key result*** Helped to start a new office for 1 000 employees by setting up network and server infrastructure, and improved an intranet application to prevent paperwork loss during handoffs between teams.

New Nizhny Novgorod **2009–2010**

Back-End Engineer | PHP, Zend Framework, MySQL, Memcached

- Hyperlocal online news with 100 000+ daily active users.
  - ***Key result*** Created a new website to update design and handle target load of 3 000 users per minute, growing the audience.

Education

Radio Engineering College **2009**

Associate of Science in Information Technology *Nizhny Novgorod, Russia*

Skills

Programming Languages JavaScript, TypeScript, PHP, C, Go, Erlang, Lisp, SQL, HTML, CSS
Frameworks & Runtime React, Node.js, Next.js, Angular, Astro, Eleventy, WordPress
Operating Systems Linux, Debian, openSUSE, Gentoo, macOS, OpenBSD
Databases MariaDB, PostgreSQL, MongoDB, Redis, Firebase
Infrastructure Docker, AWS, dedicated, self-hosted, KVM, Podman, Rancher, Kubernetes, Appwrite, OpenTofu, HAProxy, ModSecurity, Nginx, Caddy, GraphQL, RabbitMQ, Prometheus, Grafana, Black Duck
Developer Tools Git, GitLab CI/CD, CMake, Biome, Vite, Webpack, Wireshark, Burp Suite