




Sergei Shilko

Creativity is Intelligence having fun - Albert Einstein

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 English, German, Russian, Belarusian, Polish




BACKGROUND

ABOUT

IT Professional with 15+ years experience in backends, mobile APIs and AWS platform. Recently worked at Tandem: online language exchange app to learn languages, chat, video call, book tutors, get certified in language and find new friends. Working with Docker, Microservices, API's, AWS, Scrum, PHP, Golang, Java, Serverless, Kubernetes. Experience with mobile devices, payments, video/audio calls, messaging, social networks, realtime systems, fraud detection, risk management, hiring, project management, engineering lead. Education domain.

WORK EXPERIENCE

Head of Engineering at Tandem Language Exchange App www.tandem.net,
Jun, 2016 - Feb, 2022  5 years 8 months

Support backend code & infrastructure, grow & manage team, more analytics, long-term goals. Ensure that the business is capable of building and running software at scale

- Scaled backend infrastructure from 1000 RPM to 80000 RPM, from 100kDAU to >1mDAU and <50ms API response time
- Scaled backend capacity from 1000's of users to >15M users
- Applied cost savings plans and utilized AWS Spot instances to reduce costs by 32%
- Hired multiple AI/ML, Data, Backend and devOPS engineers.
- Migrated monolithic backend application into 15 independent services
- Introduced Golang & AWS Keyspaces/Cassandra, DynamoDB for high-load group chat application storage
- Promoted AWS Best Practices, executed AWS Well-Architected framework together with AWS solution architects
- Managed >40 EC2 servers across 3 AWS regions, migrated from AWS EC2 Classic to AWS VPC
- Updated codebase from PHP5 to PHP 7.4, Go 1.14 Docker 19, PHPUnit 9
- Supervised development of serverless microservices in Java/Kotlin/Golang & DynamoDB
- Split monorepository into >30 separate repositories with separate CI/CD
- Executed multiple refactoring projects in code, infrastructure, raw storage and databases
- Maintained backend roadmap and technology radar tech-radar.opensource.tandem.net based on ThoughtWorks
- Improved user retention analytics, subscriptions and overall revenue tracking



- Updated realtime messaging server RabbitMQ, secured authorization, added 3rd websocket/MQTT browser client
- Added support for in-app purchase gifting, subscription hold, grace periods, geo-search.
- Increased application infrastructure and performance/APM monitoring automation and alerting via NewRelic
- Built full CI/CD pipeline on AWS Pipeline inc. Blue/Green deployments and AWS ASG/AutoScaling
- Improved China & SEA connectivity via transparent HAProxy, ICP/Hosting issues resolved
- Built internal business KPI, retention, engagement and revenue tracking systems
- Enforced PHPUnit & integration testing, code reviews & code style policies
- Migrated application services into containers (Docker)

Senior FullStack Software Developer at Tandem Language Exchange App www.tandem.net ,

Jun, 2013 - Jun, 2016 ⌚ 3 years

Mature backend solutions for audio/video (tele)communications software. Developed public API for mobile clients.

- Implemented public API for native mobile clients
- Refactored old MVP prototype codebase
- Launched first production release 1.0
- Celebrated first 50 users sign-up on GA and first promotions on iTunes
- Deprecated legacy on-premise hosting and migrated into AWS EC2-Classic
- Celebrated '2015 Most innovative app of the year' award (Apple iTunes)
- Implemented PHP framework with open-source components
- Reduced API response times from $\geq 2000\text{ms}$ to $\sim 100\text{ms}$
- Implemented critical app functionality: in-app messenger, community userfeed, email-reminders, user search and more

Lead Software Developer at Yangutu LLC,

Nov, 2011 - Nov, 2012 ⌚ 1 year

Working on web based social network.

- Added API for supporting external 3rd party Game-platform add-on's
- Added AMF Flex/ActionScript API Server for import/export of data to mobile platform
- Added Facebook, Instagram, VK and other social networks integrations
- Extended user data import and export API's

Software Engineer at eHarmony Inc www.eharmony.com ,

Aug, 2008 - Sep, 2011 ⌚ 3 years 1 month

eHarmony Reporting and Management Tools for Risk Management team.

- Developed CMS/RMS Internal service from specification to manage and automate risks and fraud detection
- Working with sensitive client payment information
- Extended CMS/RMS service with flexible and configurable multi-role authentication system for different regions
- Added support for localization and translation of CMS/RMS
- Added analytics and audit tools for tracking and optimizing team (users or the CMS/RMS) performance

Software Engineer at IponWeb www.iponweb.com ,

Aug, 2007 - Sep, 2011 ⌚ 4 years 1 month

SOAP/Rest API for real-time AD Exchange platform - RightMedia

- Worked on SOAP-API for high-load real-time advertising platform at scale
- Heavily extended and rewrote existing functional test coverage, integrational e2e testing
- Covered many new edge cases in tests which lead to fixes in critical API parts

Software Engineer at Yahoo! yahoo.com ,

May, 2008 - Mar, 2009 ⌚ 10 months

AD Exchange API - RightMedia

- Refactoring tests, code and documentation, working with remote Yahoo developers team. SOAP API. Perl.



SKILLS

AWS

EC2 ELB Lambda S3 RDS ElastiCache VPC CloudFront Route 53 API Gateway CodeCommit
 CodeBuild CodeDeploy CodePipeline CloudWatch IAM ECR Cognito Certificate Manager
 WAF & Shield SQS SNS Mobile Hub PinPoint WorkMail Organizations DynamoDB
 Secrets Manager

Backend

PHP MySQL Redis Percona SphinxSearch ManticoreSearch Docker Kubernetes Beanstalkd
 RabbitMQ AMQP MQTT Puppet Nginx Git PHPUnit NewRelic APM HAProxy

Leadership, SDM, SDLC

Scrum Agile Team Lead Project Manager Head of Engineering Backlog, Roadmap, Delivery Hiring
 Budgeting Team building Cross functional teams Mentoring Jira Confluence C4 Model



EDUCATION

Experimental psychology, MSc Psychologe Pädagoge, Grodnenski Dzjaržauny Universitet

Sep, 2005 - Sep, 2010

Elektrische Energietechnik (Power engineering), MSc Electrical Engineering, GGPEK Elektrotechnik College

Sep, 2000 - Sep, 2005



AWARDS

Master Cloud-Native Infrastructure with Kubernetes , Course by LinkedIn

Awarded on: Feb 07, 2022

AWS Certified Solutions Architect - Associate (SAA) , Certificate #3GV5K7KKC14Q17W1

Awarded on: Dec 13, 2018

Telc Deutsch B1 Zertifikat , Certificate #0503718

Awarded on: May 01, 2018

AWS Certified Cloud Practitioner , Certificate #3B28554BK2EQ1PSD

Awarded on: Nov 21, 2020

♥ INTERESTS

Events

Berlin - AWS Summit 2014, 2015, 2016, 2017, 2019

KubeCon + CloudNativeCon 2018, 2019

Podcasts, Forums, Interests

Golang radio-t.com >= 2014

Habr habr.com >= 2008

AWS Podcast >= 2016

The WAN Show >= 2019

UWP by Umputun >= 2016

IXBT.com

Tom's Hardware

agilemanifesto.org

12factor.net

Reading

Management

Agile

Scrum

Sci-Fi

Fantasy

Horror

Clean Code

TDD

Architecting for the Cloud

Best practices

High performance

IT novels

Marketing and selling high-tech products

Scalable and maintainable systems

Algorithms

Managing successful projects

Building teams

Software architect wisdom

Isaac Asimov

Robert Heinlein

George Orwell

Terry Goodkind

Alan Kuper

Tom DeMarco

Robert Martin: Clean Code: A Handbook of Agile Software Craftsmanship

Adrenaline Junkies and Template Zombies: Understanding Patterns of Project Behavior

Edward Yourdon Death March

Alan Kuper The Inmates Are Running the Asylum

Smart and Gets Things Done: Joel Spolsky's Concise Guide to Finding the Best Technical Talent

Frederick P. Brooks, The Mythical Man-Month

E. Gamma Design Patterns. Elements of Reusable Object-Oriented Software

J. Hank Rainwater Herding Cats: A Primer for Programmers Who Lead Programmers

Allan Kelly: Xanpan

Jinesh Varia: AWS Architecting for the Cloud: Best practices

The Phoenix Project: A Novel About IT by Gene Kim, Kevin Behr, George Spafford

SCRUM The Art of Doing Twice the Work in Half the Time by Jeff Sutherland

The soul of a new machine by Tracy Kidder

The five dysfunctions of a team: a Leadership fable by Patrick Lencioni

Crossing the chasm: marketing and selling high-tech products to mainstream customers

Designing Data-Intensive Applications

The Deadline: A Novel about Project Management by Tom DeMarco

Solid Code: Optimizing the Software Development Life Cycle by Donis Marshall and John Bruno

The software development edge: essay on managing successful projects by Joe Marasco

Joel on software by Joel Spolsky

Why software sucks... and what you can do about it by David S. Platt

Programming Collective Intelligence by Toby Segaran

97 things every software architect should know: collective wisdom from the Experts