Sergei Shilko

Creativity is intelligence having fun - Albert Einstein

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BACKGROUND

ABOUT

I'm engineer with hands-on expertise in backends. I designed, built, deployed and added features to social network app, built REST & RPC APIs, proficient with AWS cloud. I developed scalable real-time chat, video call, online booking system, search, online payments, fraud & risk systems.

WORK EXPERIENCE

- **Senior Software Engineer www.messagebird.com, MessageBird B.V.**
  Jun, 2022 - Present

  Building scalable foundation services: Golang, K8s, PHP, AWS, GCP, PHP8 for accounts, accounting, billing, payments.

  - REST APIs, OpenAPI v3, Google GRPC & protobuf APIs both in PHP8 and Golang 1.20
  - Developed microservices in platform system, product services, api-first, domain-driven design
  - Developed Customer WEB/UI self-service portal
  - Designed and implemented SLO/SLI metrics and alerting with Grafana & Prometheus for K8s apps
  - Optimized Billing cluster runtime >5000 RPS ledger OLTP workers: 60% cost reduction
  - Implemented runtime metrics with NewRelic, DataDog, OpenCensus, Lightstep, Jaeger
  - Improved speed of Gitlab CI/CD pipelines for K8s Helm deployments
  - Golang services in for billing, accounting, invoicing, pricing, quoting in distributed multi-region system: golang/echo.v4, dynamodb/single-table
  - Improved security by implementing features like 2FA/MFA, SSO, reCaptcha, rate-limiting ...
  - Contributed to complex CPQ Quoting and Pricing project: enterprise B2B pricing modeling

Head of Engineering www.tandem.net, Tripod Technology GmbH
Jun, 2016 - Feb, 2022   🕐 5 years 8 months

Leadership and hands-on role, 1M DAU, 12+ Engineers, 50+ employees, education domain. Microservices applications, grow & manage team, analytics, business continuity. Building and running software at scale.

- Coordinated project delivery with Product, Marketing, Community departments
- Evaluated projects and features requirements, checked designs and architecture of the software product
- Coordinated projects for cross-functional engineering team
- Evaluated engineers performance, coached and mentored engineers in technologies and career development

- Scaled backend infrastructure from 1000 RPM to 80000 RPM, from 100kDAU to >1mDAU and <50ms API response time
- Scaled backend capacity from 1000DAU to >15M users
- Applied cost savings plans and utilized AWS Spot instances to reduce costs by 32%
- Hired multiple Frontend, AI/ML, Data, Backend and devOPS engineers.
- Migrated monolithic backend application into 15 independent services
- Introduced Golang & AWS Keyspace/Cassandra, DynamoDB for high-load group chat application storage
- Promoted AWS Best Practices, executed AWS Well-Architected framework together with AWS solution architects
- Maintained all business infrastructure of >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 Golang & DynamoDB
- Split mono-repository 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 real-time 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 Software Developer www.tandem.net, Tripod Technology GmbH

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 >=2000ms to ~100ms
- Implemented critical app functionality: in-app messenger, real-time chat, community live feed, email-reminders, user search and more

Lead Software Developer meetville.com, 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 www.eharmony.com, eHarmony, Inc

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, IponWeb

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

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

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

Software Engineer at Yahoo! yahoo.com, Yahoo!
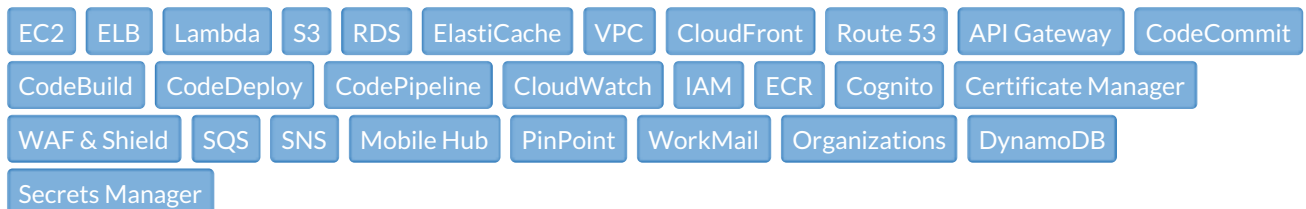
May, 2008 - Mar, 2009 🕓 10 months

AD Exchange API - RightMedia

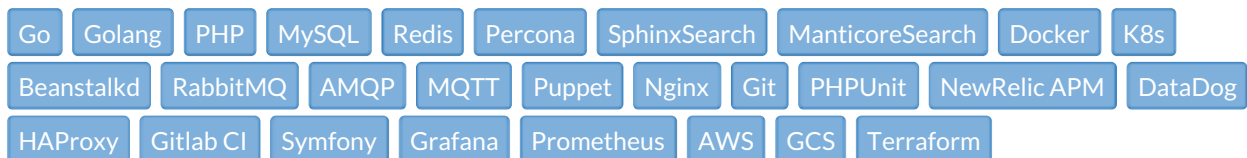- Refactoring tests, code and documentation, working with remote Yahoo developers team. SOAP API. Perl. PHP5
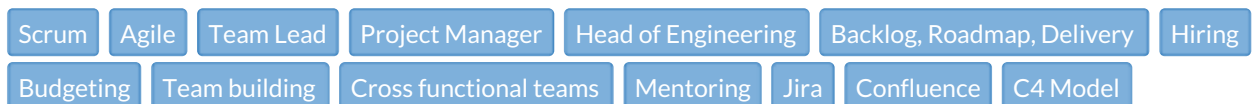
SKILLS

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

Go Golang PHP MySQL Redis Percona SphinxSearch ManticoreSearch Docker K8s Beanstalkd RabbitMQ AMQP MQTT Puppet Nginx Git PHPUnit NewRelic APM DataDog HAProxy Gitlab CI Symfony Grafana Prometheus AWS GCS Terraform

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

- Elektrische Energietechnik, Engineering, GGPEK Elektrotechnik College

AWARDS

Ultimate Go Certificate #1latfj6ukq

Awarded on: Jan 25, 2023

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

Awarded on: Dec 13, 2018

AWS Certified Cloud Practitioner Certificate #3B28554BK2EQ1PSD

Awarded on: Nov 21, 2020

Telc Deutsch B1 Zertifikat Certificate #0503718

Awarded on: May 01, 2018

INTERESTS

Events

Berlin - AWS Summit 2014, 2015, 2016, 2017, 2019   KubeCon + CloudNativeCon 2018, 2019