ALEKSANDR BOGDANOV
BACKEND/DEVOPS SPECIALIST

alex@syn.im

github.com/synchrone

Profile

Technology-non-bound engineer, looking for an infrastructure / platform challenge.

Technical

Python	Docker/Kubernetes	AWS (CFN, DynamoDB, SQS)
PostgreSQL/PostGIS	Continuous Delivery	GCP (BQ, BigTable, Dataflow)

Experience

Senior Software Engineer at Planet.com

Kubernetes, Python, PostGIS, Google Cloud   **February 2017 - present**

- Implementing platform permissions system to serve satellite imagery (Flask, SQLAlchemy, GDAL)
- Billing engine, enforcing area download quotas (Bottle, low-level PostGIS)
- BigQuery-based Internal Analytics app (Google Datastudio as a UI)
- Handling 200 Billing API requests per second (uwsgi, postgres locks/transactions)
- Fully automated Delivery pipeline
- Migrating from Amazon Web Services to Google Cloud Platform (SQS, RDS, Docker)

Cloud Platform Lead at LOVOO GmbH

Kubernetes, CoreOS, Go, Advanced AWS & GCP   **April 2016 - December 2016**

- Deploying a slew of microservices in Golang to a distributed Kubernetes cluster, optimized to handle 1.5 Gbit/s of API traffic
- Internal Platform as a Service for the teams
- Fully automated deployments, canary releases, traffic shifting for blue\green
- Evaluating and benchmarking cloud providers for an optimal solution

Tech Lead at Home24 AG

Internal tools team, leading 3 developers   **November 2014 - April 2016**

- Logistic calculations project, handling millions of entries (migrated RabbitMQ to SQS)
- Massive 3rd party product data import re-architecture (SQS, DynamoDB, optimistic locking, Streaming XML)
- Starting an acceptance testing project, providing QA with the architecture for transparency and testcase code reusage (Codeception)
- Major webshop checkout refactoring for testability and performance

Senior Backend Developer at Home24 GmbH

PHP, MySQL, Apache Solr   **October 2013 - November 2014**

- Optimizing a web e-commerce platform backend for runtime performance in a complex data environment
- Data denormalization over Solr for performance, search and faceting (custom Java data handlers)
- Bringing developer productivity tools for a big team (70 devs) to make recurring tasks efficient
- Internal 'git best practices' sessions, improving branching strategy, conducting git history investigations

Fullstack Developer with ER-Telecom ISP

PHP, MySQL, PostgreSQL, BitTorrent   **June 2008 - November 2012**

- Designed and implemented an advanced file sharing system. Cross-domain messaging, bulletproof uploading system, BitTorrent-based, Highload optimized; user ratings and self-moderation algorithms included.
- Created a 2-tier distributed video-on-demand delivery system, and a domain-specific content recommendation system.
- Online-gaming services maintenance; developed a web-based monitoring system, as well as championship management website

Kubernetes consulting

Kubernetes, AWS, OpenVPN, Apache Spark   **May 2018**

- Implementing a PoC of K8S deployment for a client
- Persistent volumes provisioning
- Implementing a debug-on-cluster approach with IntelliJ IDEA, keeping HDFS in the cloud

OSS Contributions to Cloudron

Terraform, NodeJS, Google Cloud Platform   **September 2017, December 2017**

- Fully functional app deployment for both AWS and GCP
- Implemented Google Cloud Storage backup driver from scratch
- Implemented Google Cloud DNS driver from scratch

Calendars and Contacts app

Python 3, Javascript, Sandstorm.io   **February 2016**

- Forked open source applications to provide an integrated solution for personal cloud and security sandbox platform
- Implementing CalDAV and CardDAV protocols, ensuring various client compatibility
- Contributing to sandstorm.io, working together with core developers in an open-source fashion
- Setting up acceptance test suite based on Apple's CalDAV server tools

Highcore project

Ansible, Sensu, Graphite/Grafana, AWS/CFN, AWS/SQS   **May 2015 - July 2015**

- Designed a workflow, enabling action traceability and issuer accountability
- Implemented parts of API backend, integrating AWS CloudFormation functionality with Sparkle template generator and Git
- Implemented a scalable metric gathering server, irrespective of the source (app/service/node)
  - Metric-state-based alerting functionality
  - Dashboards with actionable metric insights
- Implemented a flexible monitoring stack functionality, optimized for Cloud use
  - Fully dynamic host (de-)registration

Contributions to Sovereign

Ansible, Bash   **August 2015, December 2014**

- Contributing to a set of tools for deploying a personal cloud
- ownCloud automatic configuration
- Roudcube automatic configuration; CardDAV plugin ownCloud integration
- ownCloud XMPP integration

Contributions to Prosody.im

XMPP\Jabber, Lua language, PostgreSQL   **July 2014 - December 2014**

- Implementing XEP-0136 (Message Archive) support from scratch
- Integrating XEP-0136 with mod_mam (XEP-0313) storage for compatibility

The Red Button project

Arduino/C   **October 2015**

- Implementing a programmable USB-keyboard emulating Big Button, emitting a shortcut
- UART-over-USB app-specific protocol implementation
- Storing programmed shortcuts in EEPROM energy-independent memory, with CRC consistency check

Penza State Technological University   **2008-2013**
Computer Science (diploma)

Zend Technologies Ltd.   **2011**
PHP 5.3 Certified Engineer

Microsoft Corp., Prometric   **2011**
Microsoft Certified Technology Associate, Windows Development Fundamentals