Tatiana Didik

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Software Engineer

A passionate back-end developer, a team-worker, who undertakes complex assignments, meets tight deadlines and delivers great performance. Result- and quality-oriented specialist, open to new technologies and business challenges. Experienced in all phases of a project from initial development to production support, including monitoring and resolution of performance related issues. Oracle Certified Java Programmer II (Professional).

Core Competencies

✓ Java	✓ Maven	✓ SpringBoot	✓ Jenkins	✓ Agile	✓ Git	✓ JBoss
✓ Python	✓ Gradle	✓ Hibernate	✓ GitLab	✓ Scrum	✓ JIRA	✓ Mockito
✓ ShellScript	✓ Linux	✓ LMAX	✓ SonarQube	✓ BDD	✓ Gerrit	✓ SVN
✓ SQL	✓ Vagrant	✓ Cucumber	✓ JProfiler	✓ UML	✓ RestAPI	✓ HTML

Certifications

Oracle Certified Associate	Java SE 7 Programmer I	**90%**	January 2015
Oracle Certified Professional	Java SE 7 Programmer II	**86%**	February 2015

Professional Experience

BJSS INC / Senior Developer Consultant / Full Time   **Apr 2018 – Current**

BJSS is an award-winning (Queen's Award for Enterprise) delivery focusing IT consultancy

Goldman Sachs / Client Onboarding Technology   **Jan 2020 – Jun 2020**

✓ Initiated incorporation of integration tests into development process with implementation of a generic solution based on Cucumber framework. Minimization of the time and effort required for writing an integration test scenario allowed for better test coverage and reduction of manual regression testing, significantly shortening feedback time and improving release quality and frequency, while advantages of Gherkin language allow scenarios to be written by non-technical business owners and users, shifting development process towards BDD approach.

✓ As an integral team member, actively participated in implementation of a client onboarding system. Namely, created an algorithm for grouping relevant documents for joint agreements, optimizing negotiation process by reducing required number of documents by duplicate elimination. In collaboration with agile team of 6 people, was engaged in implementation, code review and enhancements of the system implemented with Rest API based microservice architecture backed by Spring Bootstrap framework.

✓ Took part in agile transformation, introducing improvements for the team day-to-day processes, such as: essentiality, format and goals of retrospective meetings; consistent approach in use of story points; necessity of backlog grooming sessions as a pre-requisition for sprint planning.

Refinitiv / Active Trading   **Jul 2018 – Jan 2020**

✓ Automated performance analysis of several high load applications with customized tools written from scratch on Python, utilizing Pandas and Matplotlib libraries. The tools are used routinely for baseline tests performance analysis for all major releases and are visualizing latency and throughput metrics. Created and maintained Kibana Dashboards with Timelion visualizations, allowing to get live performance data from production system.

✓ Developed configurable instrumentation implementation for a custom thread pool framework allowing to locate performance flaws in the thread pool itself as well as in external code utilizing it. Automated instrumentation and execution latency analysis with Python and Kibana visualization, allowing to track performance issues down to a code line location and correlate performance recessions with GC events. Using the instrumentation and analysis tools, detected and fixed a performance issue, resulting in 5 times latency improvement in 99 percentile, 3 times in average and allowing to increase throughput by 10% in the affected module[1].

✓ Utilized Cucumber and Spock with PowerMock in a Gradle project to create unit, functional and integration testing frameworks for message driven module and for thread pool implementation. Refactored an overly complicated multi-threaded module, allowing easily support and maintain the code, providing clear visibility of context switches.

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- ✓ Created a tool for parsing and comparison of BIOS and network settings printouts from 100+ servers, allowing to find and fix inconsistencies. Applied various BIOS configurations using Conrep tool and executed performance tests allowing to determine gains and hazards of use of various BIOS settings and network interfaces of higher capacities. Verified update of unified BIOS and network configurations for over 50 servers in production.

- ✓ Actively participated in Agile transformation, suggesting and maintaining process improvements, such as task estimation and planning, peer code review.

Low Latency Trading in a Cloud   Apr 2018 – Jul 2018

- ✓ Worked as an integral team member developing and delivering an experimental low latency trading platform in the cloud (AWS, Azure and Oracle)[2]. Specific achievements included fine tuning the implementation and usage of the LMAX Disruptor pattern to maximize performance whilst executing in a virtual environment and advanced tuning of the G1GC garbage collector to significantly reduce jitter within the overall architecture.

JENKINS / Sonar-Gerrit Plugin / Open-Source   2015 – 2017

- ✓ Developed, documented and maintained a plugin for Jenkins, allowing to post SonarQube report data as a Gerrit review. It was installed to up to 2000 Jenkins instances[3] worldwide.

MAGENTA TECHNOLOGY / Echo / Software Engineer / Full Time   May 2010 – Jun 2014

Project: **Echo** is a Microsoft Gold Partner award winning [4] taxi dispatch enterprise software written in Java. The project is managed with Apache Maven, is based on relational database (MS SQL), accessed with Hibernate JPA via JBoss application server. Inventory used on this project includes JIRA, SVN, TeamCity.

- ✓ Implemented software modules including: fully configurable driver salary calculation, reporting and processing module; dynamic delay calculation[5] as a part of the award-winning scheduling and auto-allocating features; framework for integration with external taxi aggregators (composing about 20% of corporate bookings[6] in total) along with integration[7] with One Transport taxi consolidator (now supplying businesses powered by Echo with thousands of cars monthly;

- ✓ Participated hands-on in functional specification design; contributed into system redesign allowing partnering companies such as greentomatocars and Trident Niven to share their resources and employees. This partnership allowed the companies to decrease by 13%[8] the out-sourcing of spilling-over bookings;

- ✓ Was responsible for support and enhancement of a custom Java Swing UI framework allowing to generate UI components from xml files. Implemented a mechanism of editable fields highlighting in accordance with validation needs. Developed automated performance tests using TestComplete allowing to locate UI memory leaks and initiate heap dump when necessary. Performed detailed heap dump analysis with JProfiler, implemented a fix destroying circular links, preventing Java garbage collector from reclaiming unused objects. As a result, RAM allocation by the application has reduced dramatically.

Education

SAMARA STATE AEROSPACE UNIVERSITY / Samara, Russia	MS 2010 – 2012
Applied mathematics & informatics BS & MS	BS 2006 – 2010

[1] Best Low-Latency Data Feed Provider https://www.waterstechnology.com/awards-rankings/4461296/waters-rankings-2019-best-low-latency-data-feed-provider-refinitiv

[2] BJSS / LLT: https://www.bjss.com/high-frequency-low-latency-trading-in-the-public-cloud-the-time-is-now/

[3] Sonar-Gerrit plugin webpage is https://plugins.jenkins.io/sonar-gerrit, current installations statistics shown on http://stats.jenkins.io/plugin-installation-trend/sonar-gerrit.stats.json, the number is as of May 2019

[4] Magenta / Echo: Microsoft Gold Partner award news: https://magenta-technology.com/blog/2016/08/08/magenta-technology-gets-microsoft-gold-for-echo-taxi-and-private-hire-dispatch-software

[5] Magenta / Echo: dynamic delays are mentioned in https://youtu.be/gqUy4VIYqoI?t=224 and explained in https://magenta-technology.com/blog/2016/09/12/are-all-apps-really-equal

[6] Magenta / Echo: Booking sources statistics: https://magenta-technology.com/echo#corporate

[7] Magenta / Echo: integration details: https://magenta-technology.com/echo#integration and https://magenta-technology.com/blog/2016/09/22/magenta-bridges-the-private-hire-booking-gap-with-echo-integrations

[8] Magenta / Echo: Two of Transdev's businesses (greentomatocars and Trident Niven) collaborate with empowerment of shared application instance https://magenta-technology.com/blog/2014/09/10/trident-niven-improves-efficiency-and-reduces-communication-traffic-by-60-with-magentas-taxi-dispatch-and-private-hire-software

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