Tatiana Didik

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● e-mail: tatiana.didik.0@gmail.com ● US Visa Status: GC ● Current Location: Weehawken, NJ (NYC Area) ●

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 professional, open to new technologies and business challenges.

Core Competencies

✓ Java SE	✓ JDBC	✓ Jenkins	✓ Swing UI
✓ SQL	✓ Hibernate	✓ JIRA	✓ HTML
✓ JBoss	✓ SVN	✓ UML	✓ CSS
✓ Maven	✓ Git	✓ XML	✓ JavaScript

Certifications

Oracle Certified Associate	Java SE 7 Programmer I	**90%**	January 2015
Oracle Certified Professional	Java SE 7 Programmer II	**86%**	February 2015
IELTS General	L 7.5 R 9.0 W 7.0 S 6.5	**7.5/9.0**	September 2016

Professional Experience

BJSS Inc / Developer Consultant (Full Time) Apr 2018 – Current

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

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) [1]. 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.

Financial Industry Client / Developer Consultant Jul 2018 -Current

Financial Industry Client / Developer Consultant / July 2018 – Current

- ✓ Automated performance analysis of certain parts of client's system 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 changes.
- ✓ Created a tool for parsing and comparison of data from 100+ servers, allowing to find and fix inconsistencies among configuration and BIOS settings. Applied various BIOS configurations using Conrep tool and executed tests allowing to determine performance gains and hazards of use of various BIOS settings and network interfaces of higher capacities.
- ✓ Created and maintained Kibana Dashboards with Timelion visualizations, allowing to get live performance data from production system.
- ✓ Developed configurable instrumentation framework bounded to a custom thread pool framework allowing to locate performance flaws in external code utilizing the thread pool as well as in the thread pool itself. Automated instrumentation analysis with Python and Kibana visualizations. Automated major performance flaws analysis with visualization of cumulative impact of code invocations taking long time, allowing to track performance issues down to a code line location and correlate performance recessions with GC events.
- ✓ Utilized Cucumber with Picocontainer (for DI) and PowerMock in a Gradle project to create unit & functional testing frameworks for several components.

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

Developed, documented and maintained a plugin for Jenkins[2], allowing to post SonarQube report data as a Gerrit review. It is currently downloaded more than 1800 times[3] and used on software development projects worldwide.

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

Project: **Echo**[4] is a Microsoft Gold Partner award winning [5] 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 as bug-tracking system, SVN for version control, TeamCity for continuous integration process. All the above were used on daily basis.

- ✓ Implemented new software modules in accordance with functional specifications: fully configurable driver salary calculation, reporting and processing module; dynamic delay calculation [6] 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[7] in total) along with integration[8] 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%[9] the out-sourcing of spilling-over bookings;
- ✓ Was involved in functional specification design for mentioned above modules along with business analyst.
- ✓ Improved custom Java Swing UI framework:
- ✓ Developed a mechanism allowing locating of UI memory leaks (unnecessary allocation of huge amounts of memory) automatically using Test Complete to emulate highly loaded use of the application and heap dump generation when necessary. After detailed heap dump analysis with JProfiler, added a mechanism for destroying circular links, preventing Java garbage collector from reclaiming unused objects, that dramatically reduced RAM allocation by the application;
- ✓ Invented a mechanism allowing highlighting of editable fields in accordance with input validation needs;
- ✓ Was in charge for the whole project's Java Swing UI framework.
- ✓ Participated in bugfixing, troubleshooting, maintenance and technical support of previously developed modules.

SSAU / Course Project 2011 – 2012

Development of an algorythm of project time costs estimation

Design and development of a time management tool allowing to calculate estimated time costs for a complicated task set using UML for visualization, probability laws for estimation and a neural network for the process emulation.

Education

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

● Discrete Math ● Math Statistics and Probability Theory ● Math Analysis ● Algebraic Structures ● ● Computer Telecommunications ● Parallel Computation and Programming ● Numerical Methods ● ● Distributed DB and Expert Systems ● Math Modeling ● Math Methods of Cryptography ●

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

[2] Jenkins is the leading open source automation server for continuous integration and delivery (CI/CD) https://jenkins.io/

[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: project web page: https://magenta-technology.com/echo

[5] 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

[6] 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

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

[8] 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

[9] 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