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**Sotnyk Dmytro**

**Version 1.16**  
**ITDevel.com, 2011**

## General Information



First Name	Dmytro
Last Name	Sotnyk
Year of birth	1980
Citizenship	Ukrainian

[Current information](#) and the [last version of this document](#) is also available at [ITDevel.com](http://ITDevel.com).

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## Personal Qualities

Quick learner, analytical, smart worker, good communicator, highly committed

## Professional Overview

- Over 9 years of experience in Analysis, Design, Development, System Integration and Implementation of software projects in Client/Server and online environments using Java, J2EE, PHP, Oracle and MySQL
  - Good knowledge of Object Oriented Analysis and Design (OOA/OOD)
  - Good knowledge of writing complex database queries and stored procedures in Oracle
  - Good knowledge of the Full Software Life Cycle Process
  - Extensive work experience in J2EE and PL\SQL
  - Experienced in Developing Billing Systems
  - Experienced in Developing Web Services
  - Good knowledge of System Administration under Red Hat Linux Servers (Oracle Database Servers, High-Performance Web Servers)
  - Good knowledge of Security and Performance tuning under Red Hat Linux

## Experience

Skill	Level	Years	Last Used
Java/J2EE	Senior	5	2011
Oracle PL/SQL	Expert	8	2010
PHP	Middle	3	2008
RedHat Linux Administrationg	Expert	7	2011

## Technical Skills

- Languages: Java/J2EE, PHP 5, JavaScript, C++ for UNIX
- Scripting Languages: Ant, Bash
- Database Systems: Oracle 10g/11g, MySQL
- Database Scripting: PL/SQL
- Technologies: EJB3, JSP, AJAX, JPA
- Frameworks and Libraries: Hibernate3, Struts2, JSF, GWT, Smarty.
- Operating Systems: RedHat Linux, Win2K/XP
- Web Servers: JBoss, Apache Tomcat, Apache Httpd, Nginx

## Academic Qualifications

2003 BE, National Technical University, Kharkov, Ukraine  
Specialization: Software Engineering

## Professional Experience

 **Under NDA, April 2011 – to date**  
Project manager, technical expert



### TV loyalty program

Specialised web service for USA regions.

 **Under NDA agreement.**

**Project size:** large

**Team size:** more than 10

**Technologies, etc:** J2EE, EJB3, Spring, Hibernate 3, JMS, Oracle SQL, Jboss, Tomcat.

#### Features:

- Cluster architecture
- Distributed architecture
- High load
- High availability

#### Responsibilities:

- Project management
- Technical expert
- Architectural solution
- Research
- Development
- Oracle DBA

**ORTESS Inc. , December 2009 – April 2011**

Team leader, Project manager

### RXTP project



Specialised financial application (high-performance Risk, Analytics and Algo Trading solutions).

 **Under NDA agreement.**

**Project size:** large

**Technologies, etc:** J2EE, EJB3, JSF, JPA, JBoss.

#### Features:

- Cluster architecture

**Responsibilities:**

- Project management
- Technical expert
- Research
- Development

**ITDevel Group March 2006 – December 2009**  
Head of the group.

**CROSSEO project for CROSSEO, LTD**

Specialised web-portal, large distributed multi-tier application.



**Under NDA agreement.**

**Project size:** medium (more than 2 000 hours)

**Technologies, etc:** J2EE, Oracle 11g, Struts2, Hibernate3, GWT, AJAX, JMeter, XML.

**Features:**

- Cluster architecture for distributed data processing and load balancing
- Self-diagnostic subsystem with cluster overload detection and integrity check
- Automatic error reporting
- Integration with WebMoney, PayPal and MoneyBookers

**Responsibilities:**

- CTO
- Project management and system architecture development via J2EE, PL\SQL
- Full development cycle

**Improvement of an Italy Specialists project for SWB Consulting, Inc.**

Specialising in Italian villa rentals, The Italy Specialists (a.k.a. The Travel Bug) has been a respected member of the travel industry since

1976.

The project's main goal was to improve their website with an array of modifications along with adding new features into the site's CMS.

**Project size:** tiny

**Technologies, etc.:** J2EE, JSP

**Responsibilities:**

- Project management
- System research and customisation requirement analysis
- Development



## StudyGym project improvement for Illumination Study Systems, LLC

The StudyGym project provides advanced training software for Chinese language studies with a built-in dictionary.

The project's main goal was implementing an array of modifications into the interface and the dictionary update subsystem.

**Project size:** tiny

**Technologies, etc.:** J2SE

### Responsibilities:

- Project management
- System study and requirement analysis of a customizations
- Development



## IFS Applications project customisation for Kazakhmys PLC Group

IFS, Industrial and Financial Systems is one of the world's leading providers of component-based business software. Today, IFS operates in two areas: lifecycle management and midmarket ERP.

Kazakhmys PLC Group is the largest copper producer in Kazakhstan and a leading natural resource group in Central Asia.

The project's main goal was customising the IFS application as specified while working in collaboration with a team from IFS Russia.

**Project size:** huge

**Technologies, etc.:** PLASQL, UML, Centura, Harvest, Oracle 10G, IFS Application Designer, IBM Rational Rose

### Responsibilities:

- Management
- System research and customisation requirement analysis
- Development



## Nolte&Lauth GmbH.

Participation in the development and testing of a sizeable web portal.



**Under NDA agreement.**

**Technologies, etc.:** J2EE, Struts2, JMeter

**Project size:** large

### Responsibilities:

- System research and requirement analysis
  - Development
  - Management
- 



### **Database optimisation for IKSO Ltd.**

A research project led while holding the position of an expert under IKSO Ltd.

The primary goal of this research project revolved around web-portal database performance and architecture optimisation with MySQL implementation.

The end result yielded an overall increase in average request processing speed of up to 50 times the original.

**Project size:** tiny

**Technologies, etc.:** MySQL

#### **Responsibilities:**

- Project management
  - System research and requirement analysis
  - Research
  - SQL optimisation
- 



### **Data processing service**

This component was developed as a multithread J2EE service for theme-based web catalogue development.

The service's main functionality lies in interacting with search engines.

The service uses MySQL to store execution plans and keywords, filters SE results, checks links (resource availability, relevance, etc.) and stores results in the database.

**Project size:** small

**Technologies, etc:** J2EE, MySQL, JavaScript, Struts2, Tomcat 5.5

#### **Responsibilities:**

- Project management and system architecture using J2EE
  - System research and requirement analysis
  - Writing technical documentation
  - Guiding developers on the implementation of a database model and modules to interact with the database using JDBC/J2EE
  - Guiding developers and providing instructions on the implementation of reliable Multi-Threading data processing using J2EE
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## Site Load Emulator

This component was developed as a J2EE service for emulating user activities on a target site. The service uses MySQL for data storage (scheduling and execution plans, etc.).

The service spawns independent load tasks for every suitable site according to scheduled time frames. Every load task spawns a set of subtasks, which emulate the random behaviour of ordinary users.

An administrator specifies the amount of users to emulate, starting time, average time to live, pages per user and other parameters via the execution plan.

### Features:

- Proxy support
- Administration panel
- Web-interface

**Project size:** tiny

**Technologies, etc.:** J2EE, JSP, MySQL, Tomcat 6.0

### Responsibilities:

- Project management and system architecture using J2EE
- System research and requirement analysis
- Guiding developers on the implementation of a database model and modules to interact with the database using JDBC/J2EE
- Guiding developers and providing instructions on the implementation of reliable Multi-Threading data processing using J2EE
- Development



## High-Performance Web-Server Optimisation

 Under NDA agreement.

KISS is a heavily loaded multiprocessor server equipped with Apache and Tomcat web-servers under Fedora Core Linux control. The server's main functionality comprises a photo gallery and mail server. Initially, the server was unstable and very slow under load.

This task was executed by implementing a triple level request processing architecture (reverse-proxy, front-end and back-end), altering PHP scripts responsible for images and mail processing and recreating caching mechanisms to reach optimal performance. The tasks were implemented in the form of a J2EE service.

The project remained under our team's support for about two years.

**Project size:** medium

**Technologies, etc:** Linux, J2EE, JSP, MySQL, PHP, JavaScript, AJAX, XML

### Responsibilities:

- Project management and system architecture
- System research and requirement analysis
- Development

- Guiding developers



## Forum Aggregator

This component was developed in the form of a web service for synchronising forum content from multiple forums. Intended for webmasters working with one primary and several secondary thematic online forums.

The service uses MySQL and a set of modules (plugins) to parse different forums.

The service is developed as a multi-user system and equipped with built-in security, history, advanced report generation and analysis modules.

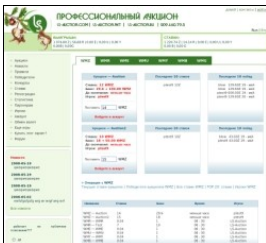
The service has an upgradeable module-based architecture based on plugins.

**Project size:** tiny

**Technologies, etc.:** PHP, MySQL, JavaScript, XML

### Responsibilities:

- Project management and system architect using PHP
- System research and requirement analysis
- Guiding developers on the implementation of a database model and modules to interact with the database using PHP and SQL
- Guiding developers on the implementation of a modular architecture
- Guiding developers on the implementation of modules



## WMZ Auction Engine

Main target of this project – is a deep refactoring and error-handling of money auction functionality.

This project's primary goal was a deep reworking of the structure and error handling within an online fund based auction website.

Payment system integration, CAPTCHA, the administration panel and auction controls were all completely reworked, along with adding a news subsystem, i18n, etc.

**Project size:** medium

**Technologies:** PHP 5.0, MySQL, AJAX, XML

### Responsibilities:

- Project management
- System research and requirement analysis
- Research
- SQL optimisation
- Development



## Tiny web-shop

A small online store for BlackBerry devices. The site consists of a set of informational pages, a trial request zone, downloads area, a shopping cart interface, administration panel and payment module for interacting with SecureCash.

### Features:

- Administration panel
- Shopping cart
- Trial download zone, etc.

**Project size:** tiny

**Technologies, etc.:** PHP, JavaScript, MySQL

### Responsibilities:

- Project management
- System research and requirement analysis
- Full development cycle



## SEO Registration Tool

This component was developed in the form of a multi-thread web service for mass registration in free web catalogues. The service uses MySQL to store target URLs and a set of modules for parallel registration, CAPTCHA recognition, data gathering and refreshing, etc.

The service was developed as a multi-user system and equipped with a built-in security, history, advanced report generation and analysis modules.

### Features:

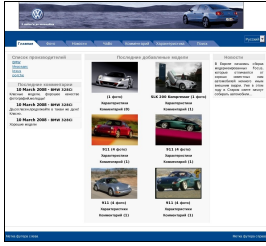
- Multi-thread task-processing model, written in JavaScript via AJAX
- Mail based reporting

**Project size:** small

**Technologies, etc.:** PHP, MySQL, AJAX, JavaScript

### Responsibilities:

- Project management
- System research and requirement analysis
- Writing technical documentation
- Project management and system architecture using PHP
- Developing a database model and modules to interact with the database using PHP and SQL
- Guiding developers on the implementation of AJAX-based data exchange
- Guiding developers on the implementation of a multi-thread module for data gathering using AJAX and PHP



## Automobile Sales Website

This project was developed as a multi-language web service for an online car store using PHP and the Prado framework. It includes an automobile catalogue with a photo gallery, news and article sections as well as a complex administration panel.

**Project size:** medium

**Technologies, etc.:** PHP, MySQL, AJAX, JavaScript, PRADO

### Responsibilities:

- Project management
- System research and requirement analysis
- Writing technical documentation
- Project management and system architecture using PHP/Prado
- Developing a database model and modules to interact with the database using AdoDB/PHP and SQL
- Coding various validations and checks to be performed client-side via JavaScript
- Guiding developers on working with the Prado framework
- Guiding developers and providing instructions on the implementation of image caching using PHP

**“Automated management systems” Design Bureau, November 2004 – October 2008**

Senior Developer



## Water Supply Billing System

This project is a scalable distributed billing system for water supply organisations. The project maintains all information regarding payments, costs, customer accounts and so forth. The system is equipped with various modules for report generation and data processing, including invoice print output, settling with natural and legal parties, etc.

The system includes a bank database for exchanging information regarding payments and customer account status information.

**Project size:** huge

**Technologies, etc.:** Oracle 8i\10g, PL\SQL, Delphi, Kylix

### Responsibilities:

- System research and requirement analysis
- Developing a set of reports using SQL, J2EE
- Taking part in developing stored procedures and triggers for business rules using PL\SQL under Oracle
- Taking part in developing UI Screens using Delphi
- Developing an application for database model review and commenting using Oracle PL\SQL and Delphi
- Developing a subsystem of various reference tables with the development of table models, stored procedures and triggers for business rules and UI Screens using Oracle PL\SQL and Delphi

- Developing a history subsystem with the development of table models, stored procedures and triggers for business rules and UI Screens using Oracle PL\SQL and Delphi
  - Taking part in developing GUI screens for user input within the data import module using PL\SQL, DOA and Delphi
- 



## Security Suite for Linux Servers

This project is a set of kernel patches (for the NFS subsystem) and system tools (PAM-module and crypto-module) developed to increase a Linux server's security.

A set of kernel patches was developed to increase NFS subsystem reliability and security during data exchange with terminals.

The PAM module is an additional system security module developed to increase the abilities of the pam\_group and pam\_wheel modules.

The crypto-module is a tool for system and user dependent data encryption/decryption, which uses information about the current user, system and system integrity as a key. Developed to protect sensitive data (used in automated tasks) from being stolen in case of a data leak or security breach.

**Project size:** small

**Technologies, etc.:** C++, GCC

### Responsibilities:

- System research and requirement analysis
  - Full development cycle
- 



## Linux Kernel Loader for Full-Disk Encryption

This project is a system tool for loading the Linux kernel from encrypted partitions developed based on the Loop-AES project.

Implemented full-disk encryption. System information and system integrity information are used to build a key during the boot stage. Any damage to server integrity will lead to system and data lockup, making it unrecoverable by outsiders.

The project is currently in use on servers based in untrustworthy or insecure buildings.

**Project size:** small

**Technologies, etc.:** C++, GCC

### Responsibilities:

- Full development cycle
  - System research and requirement analysis
  - Writing technical documentation and a user guide
- 



## Database Servers Administration

Our network currently consists of over 20 production and reserve database servers working 24/7 and connected with the main server via VPN utilising

intermediate security nodes. This network is distributed over the Ukraine amongst various towns.

**Technologies, etc.:** Linux, Bash, C++, GCC

**Responsibilities:**

- Linux administration
- Oracle installation, configuration and maintenance
- Web-server installation, configuration and maintenance
- Tracking security and performance issues
- Developing additional tools, modules and patches

**Client: NeuroSoft corp. October 2004**

Developer



**ScreenNotes**

This project is an application intended for creating, adding or editing desktop reminders in the form of labels with the ability to compose complex documents (fonts, colours, tables, schedules, formatting, attached objects) and add events to every label.

**Environment, etc.:** Delphi 7.0, COM

**Project size:** tiny

**Responsibilities:**

- Full development cycle
- System research and requirement analysis
- Developing COM/DCOM components for encapsulated data access
- Developing UI screens
- Writing technical documentation and a user guide

**FTI «Cyclone plus» Ltd. October 2002 - September 2004**

Senior developer



**Cyclone Data Suite v. 2**



Cyclone Data Suite v.2 is an application that interacts with next generation industrial gas and oil flowmeters connected via COM or USB ports. The application can receive and process data from multiple (up to 128) sources simultaneously. The application is built upon two reliable concurrent microkernels and equipped with report generation, device control and network data exchange modules.

**Project size:** medium

**Technologies, etc.:** Delphi 7.0, Interbase

**Responsibilities:**

- Full development cycle
- System research and requirement analysis
- Writing technical documentation and a user guide
- System deployment and support in Brazil
- Developing a multithread module for parallel data gathering using COM and USB ports
- Developing UI screens
- Developing a set of reports
- Developing a security subsystem
- Developing two concurrent microkernels with increased reliability
- Taking part in integrating Cyclone Data Suite v. 2 at the PetroBras data processing centre, Brazil



NATIONAL JOINT-STOCK COMPANY  
**NAFTOGAZ**  
OF UKRAINE

**Cyclone Data Suite v. 1**

The Cyclone Data Suite v.1 is an application that interacts with industrial gas and oil flowmeters connected via COM ports. The application can receive and process data from multiple (up to 16) sources simultaneously. The application is built upon a reliable microkernel with a compensating data processing algorithm and equipped with report generation and device control modules.

**Project size:** medium

**Technologies, etc.:** Delphi 7.0, Borland CPP Builder 6.0, ODBC, Interbase 5.5/6.0, Firebird

**Responsibilities:**

- Full development cycle
- System research and requirement analysis
- Writing technical documentation and a user guide
- System deployment and support on gasworks and subterranean gas storages
- Taking part in integrating Cyclone Data Suite v. 1 at the NaftoGaz data processing centres on gasworks and subterranean gas storages

**FTI «Cyclone Plus» Ltd. Website**

A website for the FTI Cyclone Plus enterprise, a company that develops and sells industrial flowmeters. The site consists of a CMS, private zone, guestbook, forum, news system, search engine, site map, visit counter with a report generation system and an application management system. The site is built upon the concept of concealable windows and drop-down menus. The engine was constructed via JavaScript.

**Project size:** small

**Technologies, etc.:** PHP, MySQL, JavaScript

**Responsibilities:**

- Full development cycle

- System research and requirement analysis

**National Technical University “KHPI”, 2002**  
Developer



**National Technical University «KhPI» Hostel Database**

A common city hostel network database. Includes several access levels based on privileges and areas of data visibility. Stores data about tenants and inventory; has a report generation system.

**Project size:** small

**Technologies, etc.:** Oracle 8i, Delphi

**Responsibilities:**

- Full development cycle
- System research and requirement analysis

**Supermarket «Target» September 2001 - January 2002**  
Junior developer



**Supermarket Trading Software Complex v. 2**

A new MS SQL based version of Supermarket Software Complex v.1.

**Project size:** large

**Technologies, etc.:** MS SQL, Delphi

**Responsibilities:**

- Assisting developers in implementing a set of reports using MS SQL
- Taking part in writing stored procedures for business rules using MS SQL



**Supermarket Trading Software Complex v. 1**

This is an enterprise scale suite of complete advanced trading applications. The applications aggregate, maintain and process data from a set of databases, data channels and sale terminals. The suite includes various modules for report generation, data exchange, etc. The software suite was constructed based on FoxPro.

**Project size:** large

**Technologies, etc.:** FoxPro, C++, SQL

**Responsibilities:**

- Assisting professional developers in implementing a set of reports using FoxPro
- Developing a tool for interacting with scales via COM ports using C++
- Developing numerous SQL scripts for database integrity verification and maintenance