# Misha Bergal

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# Objective

Significantly contribute to building of a product or experience, by participating in such aspects of development as user experience design, programming and testing.

I value working with smart, passionate and caring team more than compensation levels.

#### Skills

**Programming Languages** 

C#, SQL, JavaScript, HTML, CSS + Less, XML+XSLT 1.0, PowerShell 2.0.

Concepts

OOP, SOLID, RDBMS, ORM, TDD, BDD.

Frameworks and Technologies

NFT

.NET 1.1-4.0, Castle, NHibernate, ADO.NET, ASP.NET MVC and WebForms, Silverlight, WCF, LINQ, TPL, NUnit.

Web

HTML, JavaScript, jQuery, Bootstrap, CSS + Less, Knockout.js, Jasmine.

**RDBMS** 

SQL Server 2005/2008/R2, T-SQL, SQL Server Reporting Services.

**Version Control Systems** 

Mercurial, Git, Perforce, SourceSafe:(.

Tools

Visual Studio 2008/2010, Resharper, Reflector, Web Storm, PyCharm, RubyMine, Eclipse, Eclipse+Pydev, CruiseControl.NET, TeamCity, YouTrack, Zabbix.

## **Employment**

#### 2012 - present

Application Developer, University of Iowa, Iowa City, IA

Maintained and developed new Web based solutions for different University of Iowa departments.

Design and Planning

Interviewed customers, understood their problems and proposed effective solutions.

Wrote initial specs, made UI wireframes and project estimates.

## Implementation

Implemented front-ends using HTML, LESS (DotLess) and JavaScript

Implemented back-ends using C#, LINQ for SQL, EF 4.0 SQL Server and PowerShell. Used TDD and NUnit for writing BDD-style unit and integration tests.

Implemented shared between projects library of components to codify best practices (for front-end as well as for back-end).

Made efforts to introduce policies regarding code sharing and continuous integration/deployment.

#### Operations and support

Implemented automatic error detection and notification system, so operations team is aware of problems before customers or customer customers call in with complaints

## Education and training

Made presentations and organized seminars to teach colleagues about modern tools and methods. Set up student and staff code reviews, actively provided feedback and challenges for students working for department.

#### Operations and Developer Infrastructure

Installed and maintained TeamCity and Rhodecode installations, wrote pieces of build and continuous deployment system (MSBuild + PowerShell).

## 1995 - 2012 Software Engineer, MetaCommunications Inc., Iowa City, IA

Designed and implemented common and client specific features for <u>Virtual Ticket</u> - company's main product.

#### **Product Design**

Communicated with customers and designed product or client-specific features based on customer requirements.

## Implementation

Wrote front-ends and back-ends in JavaScript, using proprietary and well-known components (thousands LOC of JavaScript). Used Jasmine to test complex or important client-side and server-side components.

Led design and development of company's web product line, in particular <u>Approval Manager</u> - a web based proofing tool

## Product Design

Defined product roadmaps, product features, did UX design including wireframe

prototypes and full UI and functional specs, managed multi-product releases.

#### Management

Led teams of 3-5 people. Made sure that they fulfill company expectation and company fulfills theirs. Provided technical and non-technical leadership, gave seminars, trainings, led code reviews.

#### Implementation

All aspects of implementation - designed layered API's, database schemas, implemented features (front-end and back-end) using TDD/BDD, wrote reports and database upgrade scripts. Implemented necessary read path SQL queries, write path SQL batch operations and optimized them (or database schema) for better performance.

#### Front-Ends

Developed Ajax and plain front-ends using such JavaScript libraries as jQuery, Knockout.js and underscore.js, testing critical or complicated user interactions using Jasmine. Developed HTML and CSS based on UI specs. Created reusable controls (WebForms) or helpers (MVC/Razor) for common view functionality. Developed SQL Server Reporting Services reports.

#### Back-Ends:

Designed complex database schemas, wrote domain models, services, repositories (before LINQ days) using C#, .NET 3.5+, TDD/BDD (NUnit). Hand-wrote SQL (queries, views, stored procedures) for performance critical pieces. Implemented web services using WCF.

Occasionally utilized UML and ER diagrams to communicate ideas to team members and other project stakeholders.

## Infrastructure

Wrote or set up major infrastructure pieces - build system (MSBuild, psake, custom build system), CI servers (CCNet,TeamCity).

## Testing

Performed manual, semi-manual & automated testing as was needed.

# **Open-Source Work**

My only widely used public project is a part of Boost testing framework responsible for running, collecting and displaying release and trunk test results for Boost - a set of free peer-reviewed portable C++ source libraries

(http://www.boost.org/development/tests/release/developer/summary.html).

I am currently working on Jester(<a href="https://github.com/mbergal/Jester">https://github.com/mbergal/Jester</a>) - RSpec style testing framework for PowerShell.

#### Education

B.S. in Computer Science, Saint Petersburg Technical University.

# References

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