

OZGUR (OSCAR) OZTURK

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OBJECTIVE: Hands on Product Manager, Tech Lead or Senior Software Engineer Position

PROGRAMMING SKILLS

- Languages: C#, Java SE 6 (Oracle Certified, 2012), C, C++, C++/CLI, Perl, MATLAB, Delphi, Scheme/LISP, Bash, PowerShell, XML & XPATH, HTML, PHP, JavaScript, CSS, SQL, Apache VTL
- Libraries/Protocols/Frameworks: JQuery, ASP.NET (Entity Framework ORM, Dynamic Data, WebForms, Ajax, Ajax Control Toolkit, User Control and Server Control Development), Android SDK, Drupal, PHP Data Objects (PDO), SimpleXML, C++ STL, C++ Boost Libraries, C Standard Library, .Net 3.5, jabber-net, Windows 8 Store Apps, XMPP
- IDEs: MS Visual Studio, Eclipse, NetBeans, MS SQL Server Manager, MySQL Workbench
- Version Control Systems: Subversion, Git, CVS, perforce
- Project Utilities: JIRA, GreenHopper, Fisheye, Jenkins
- Operating Systems: Windows (XP, 7, 8, Server 2003), Linux (Centos/Red Hat, Ubuntu, Suse)
- Methodologies: Agile Software Development Methodology (Scrum), Continuous Integration, Test Driven Development, Unit & Regression Testing

EXPERTISE & INTERESTS

- Software Architecture (SOA, REST, SOAP), Object-Oriented Analysis and Design, Design Patterns, Algorithms, Web and Mobile Application Development, Network Programming, Databases, Data Mining, Information Retrieval

WORK EXPERIENCE & PROJECTS

SRA International, Atlanta, GA

11/2011-Present

Senior Web Application Engineer

MicrobeNet project (Developed for CDC; Centers for Disease Control and Prevention)
[ASP.NET Ajax, C#, JavaScript, JQuery, XML, HTML, CSS, PowerShell][Drupal, PHP]

- Maintains ASP.NET implementation of MicrobeNet, a web interface for scientific databases and software. Implemented RIA inline editing UI for CRUD.
- Codes PowerShell Scripts to manipulate images and data, and to generate SQL scripts.
- Experimented porting MicrobeNet to Drupal on LAMP stack (Centos Linux). Developed Drupal Module to display CRUD UI to an MS SQL Server Database; used PHP, ODBC, freedts, Drupal Forms.
- Follows Scrum agile software development methodology. Lead Scrum standup meetings. Uses Atlassian JIRA, GreenHopper, Jenkins.
- Recruited eight people and built a successful team. Interviewed over seventy people.

NCR Corporation, Duluth, GA

03/2010-11/2011

Senior Software Engineer (Database Abstraction Layer)

WebOffice project [C#, Transact SQL, Velocity Template Language] [Windows Server 2003]

- Maintainer for Data Layer of WebOffice, web application for retailers' back office transactions & reporting. Wrote query templates used in generating thousands of lines long SQL queries!
- Rewrote query templates to fix failing reports and to speed others up by hundreds of times.
- Implemented caching: dynamic query generation ran ten times faster.
- Designed and implemented formula processing: report fields could be defined as arithmetic operations of other fields and constants.

InfoBay, VentureLab, Georgia Institute of Technology, Atlanta, GA 03/2009-03/2010

Senior Software Engineer, Principal Investigator

InfoBay Project: Social Network for Information Marketplace [Client: C++/CLI, .Net 3.5, C#, jabber-net, XMPP (Extensible Messaging and Presence Protocol), Java] [Server: Boost ASIO, MySQL, MySQL Connector/C++, XMPP, Java, Openfire, Suse Linux]

- Coauthored NSF (National Science Foundation) SBIR (Small Business Innovation Research) proposal for incubation of InfoBay, supported by VentureLab of Georgia Tech.
- Implemented an online presence and desktop messaging platform using .Net technologies on the client side and C++ boost libraries on the server side, served on Suse Linux.
- Reimplemented client using a library that implements XMPP protocol. Used Openfire, an open source XMPP server with pluggable architecture, served on Suse Linux.

Oracle Corporation, Atlanta, GA

05/2008 - 03/2009

Senior Software Engineer

RPAS (Retail Predictive Application Server) [C++, STL, Java][Windows Client, HP UX and IBM AIX Unix Servers]

- Worked on *Retail Predictive Application Server* (RPAS), a platform based on an OLAP database and Client/Server architecture, for developing forecasting and planning applications.
- Written unit tests to verify compliance with technical specs.
- Modified regression tests written in JScript and ran on Windows Script Host.
- Fixed defects causing failures or performance issues in multiple releases of the code.
- Started writing a new Java-based web-client replacing the client in the 3-tier architecture.

Carnegie Institution, Department of Plant Biology, Stanford, CA

08/2007-03/2008

Postdoctoral Researcher

PlantCyc [PERL, Pathway Tools, BioJava] [Ubuntu Linux]

- Started the development of PlantCyc; a reference database of plant metabolic pathways.
- Implemented programs that extract enzyme information from various file formats to obtain a clean genome sequence database for Poplar Tree.

Database Research Lab, OSU, Columbus, OH

2002-2007

Research Assistant

LFM-Pro: Local Feature Mining in Proteins [MATLAB]

- Developed and implemented feature extraction techniques to predict and represent important sites of proteins. Applied novel rotation & translation invariant synopses to better represent protein structures.
- Applied machine learning methods to develop weighted distance metrics on the synopses to represent local and global similarity of protein structures and used them to characterize features of protein families. Application to family prediction resulted in very high accuracy.
- Implemented 3-D protein structure visualization.

CoMRI: A Compressed Multi-Resolution Index for Similarity Searching in Large Scale Genomic Data [C++, Java]

- Developed a novel index structure and sensitive search algorithms for subsequence similarity queries of genomic sequences.

Data Mining on Heterogeneous Data [C++, Java]

- Developed data mining tools based on novel similarity definitions for time series data, and used it to analyze data from Columbus Children's Hospital's microarray (gene expression) experiments and Pfizer's clinical trials.

Computer Science and Engineering, The Ohio State University, 2003-2007
Columbus, OH

Instructor/Teaching Assistant

- Instructor of "Elementary Computer Programming". Teaching assistant for "Programming Languages" course, introductory programming courses and the "Database Systems" sequences.

Center for Spoken Language Understanding, OGI, Oregon Health & Science University, Portland, OR 2000-2002

Research Assistant

Prosody Generation and Pitch Contour Prediction System

[C++, Edinburgh Speech Tools Library for Festival TTS toolkit, Red Hat Linux]

- Implemented prosody model for more natural sounding speech synthesis.

EDUCATION

PhD, Computer Science and Engineering, The Ohio State University, 2002-2007
Columbus, OH

MS, Computer Science and Engineering, Oregon Health & Science University, Portland, OR 2000-2002

BS, Computer Engineering, Bilkent University, Ankara, Turkey 1996-2000

SELECTED PUBLICATIONS

- *LFM-Pro: A Tool for Detecting Significant Local Structural Sites in Proteins*, A. Sacan, **O. Ozturk**, H. Ferhatosmanoglu and Yusu Wang, **Bioinformatics**, 23(6):709-716, 2007.
- *Vector Space Indexing for Biosequence Similarity Searches*, **O. Ozturk** and H. Ferhatosmanoglu, *Int'l Journal on Artificial Intelligence Tools*, Oct 2005, pp. 811-826.
- *CoMRI: A Compressed Multi-Resolution Index Structure for Sequence Similarity Queries*. H. Sun, **O. Ozturk** and H. Ferhatosmanoglu. IEEE Computer Society Bioinformatics Conference (CSB '03). Stanford, CA. August 2003, pp. 553-558.
- *Effective Indexing and Filtering for Similarity Search in Large Biosequence Databases*. **O. Ozturk** and H. Ferhatosmanoglu. IEEE International Symposium on Bioinformatics and Bioengineering (BIBE '03), pp. 359-366. Washington, DC. March 2003.

TUTORIAL PAPER AND TALK

- *Building an Online Collaboration Platform Using XMPP and Open Source Software, Invited Tutorial Paper*, **O. Ozturk**, The 2010 International Symposium on Collaborative Technologies and Systems (CTS 2010), Chicago, Illinois, USA, May 2010

GRANT PROPOSALS

- *Cyber-Enabled Trusted Service Exchange Networks*, Y. Altunbasak, F. Fekri, **O. Ozturk (Principal Investigator)**, NSF Industrial Innovation and Partnerships Division, Small Business Innovation Research Phase I Application, 2009. (Revised resubmission 2010.)

HONORS

- Second Place, Windows 8 Store Apps category, AT&T Hackathon, 12/02/2012, Atlanta, GA
- **Outstanding Graduate Student Award** from The Ohio State University for "outstanding contributions in the areas of leadership, scholarship, and service".
- Refereed for BIBE, ICDE, SAC, KDD, DASFAA conferences, and TKDE and DKE journals.
- Ranked 125th among 1.5 million students at University Entrance Examinations of Turkey.
- Full scholarship awarded for all undergraduate education.