

ERAY TÜZÜN

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EDUCATION:

Middle East Technical University, Ankara, Turkey

Ph.D. in Information Systems

2009-2013(Expected)

GPA: 4.00/4.00

Favorite Classes: Business Strategy, Software Project Management, and Software Process Improvement

Case Western Reserve University, Cleveland, OH

Master of Science in Computer Science (Concentration in Bioinformatics)

December 2002

GPA: 3.63 /4.00

Case Prime Fellowship Award for tuition and other expenses in CWRU (2000-2002)

Bilkent University, Ankara, Turkey

Bachelor of Science in Computer Science

May 2000

Full scholarship awarded by the Bilkent University for tuition and other expenses (1996-2000)

Ankara Atatürk Anadolu High School, Ankara, Turkey

June 1996

WORK EXPERIENCE:

Havelsan

Ankara, Turkey

Lead Senior Software Engineer, Software Architect

Nov 2008-Present

NATO Common Operational Picture (NCOP) Proposal Project: Member of bidding proposal group for NCOP project.

- Worked on system requirements, and technical solution for the project proposal
- Involved in Demo preparation for the project (Technologies used: .NET Framework 4.0, SOA, BizTalk Server, Windows Identity Foundation, Silverlight, MS SQL Server)

E-University Project: Software architect in E-University project utilizing .NET Framework 4.0, Windows Presentation Foundation, MSSQL Server, Windows Identity Foundation, Windows Server Appfabric technologies.

- Owner of System Requirements analysis & document
- Owner of System Architecture document
- Adopted Application Lifecycle Management using Team Foundation Server 2010

Command and Control Software Framework Project: Initiated to provide a framework including libraries, tools, guidelines, components to develop Command and Control software for mission processing, display processing, and hardware adaptors in a typical C4ISR domain.

- Leads Software Test and Software Process Development teams
 - Adapted Continuous Integration (Using *ant*, and *TeamCity*) to cut integration costs
 - Built automated unit test/integration test for every check-in(using *ant*, *cppUnit*, *jUnit*, and *TeamCity*)
 - Placed automatic quality gates using Code Coverage (*Emma*)/Analyzer tools
 - Organized configuration management processes using *Subversion*
 - Implemented agile practices; daily standup meetings, peer programming, unit testing, short iteration and release cycles
 - Organized Project, Release and Iteration Planning (Using *VersionOne* Agile Project Management Tool)

- Initiated awareness for knowledge management in the group, create project knowledge sharing portal using *Mediawiki*
- Responsible for implementing a Data Distribution Service (DDS) vendor independent data layer.

Software Development Process Standardization Project: Company-wide initiative to optimize and standardize Software Development Processes to increase productivity. (1 million \$ budget)

- One of the five initiators of the project team.
- Worked in all stages of the project: project initiation, analysis, requirements gathering, requirements development, and implementation.

Microsoft

Microsoft Online Services

Software Design Engineer

Seattle, WA

March 2007-Nov 2008

- Designed/Implemented a Patching Solution for *Microsoft Online Services* (New Software as a service platform from Microsoft). (Using WSUS, PowerShell, F5 Load Balancer API, C#)
- Worked on a Configuration Management Solution for large Data Centers. Main aim of the project is monitoring/updating the configuration state of a Data Center from a central location. (Using remote PowerShell, WinRm, CMDB, XML, C#)
- Designed/Implemented a Virtual Server Automation Environment to enable other developers in the team to simulate Data Center environment on their own development computers. (Provided PowerShell cmdlets by utilizing Microsoft Virtual Server API)

University of Washington/Howard Hughes Medical Institute

Department of Genetics

Senior Bioinformatics Specialist

Seattle, WA

May 2004-March 2007

- Lead a team of Junior-Level programmer analysts as well as computational students
- Designed/Implemented an innovative set of algorithms to detect Structural Variation in genomes using pair-end mapping (First in this area)
- Primarily responsible for the design, implementation, testing and maintenance of software (programs and/or scripts) that facilitate large-scale data-mining of genomic, genetic and expression databases (Programming languages used: C, Perl, Java. Environment: 50-node using Sun Grid Engine (SGE), 12Tb Linux GPFS Cluster)
- Construct specialized MySQL databases for the collection and comparison of sequence properties

Case Western Reserve University

Center for Computational Genomics

Software Engineer/Bioinformatics Programmer

Cleveland, OH

February 2003-May 2004

- Primarily responsible for the design, implementation, testing and maintenance of software (programs and/or scripts) that facilitate large-scale data-mining of genomic, genetic and expression databases (Programming languages used: C, Perl, XML)
- Optimization of computational pipeline for the detection and characterization of recent segmental duplications within eukaryotic genomes.
- Implemented a Multiple Alignment Software Application
Available at: <http://compbio.cs.sfu.ca/MAM.htm>

Case Western Reserve University
Department of Computer Science and Electrical Engineering
Graduate Assistant

Cleveland, OH
August 2000- December 2002

- Teaching Assistant of Computer Security, Software Engineering, Introduction to Algorithms
- Research Assistant in Bioinformatics

IBM
Research and Development Lab
Software Engineer

Stuttgart, Germany
Summer 1999

- Main Project: "PWS Code Processing via FTP" implemented in REXX
Reengineered PWS Code Mirroring process that solves the accessing problem for non-local users
- Programmed several REXX applications (installation programs, test programs)

IBM
Information Systems Administrator

Ankara, Turkey
Summer 1998

- Responsible for Network Administration and Information support of approximately 150 employees
- Participated in OV/VM-Lotus Notes Migration Project

COMPUTER SKILLS:

Programming Languages: C/C++/C#, Java, Perl, SQL, Visual Basic, Pascal, REXX, XML, Shell Scripts, PowerShell, ASP .NET

Operating Systems: Windows (All Flavors), Linux (Ubuntu), Mac OS X, IBM OS/2, MS-DOS

Database Systems: Microsoft SQL Server 2008, MySQL, Microsoft Access

Computer Applications/Tools: Team Foundation Server 2010, Microsoft SharePoint 2010, Eclipse, Microsoft Visual Studio .NET, Microsoft BizTalk Server, Microsoft Virtual Server, SPSS, Microsoft Windows Update Services, Microsoft Product Studio, Microsoft Exchange Server, Microsoft System Center for Operations Manager, Microsoft Office Applications, Enterprise Architect, Microsoft Visio, Teamcity, Subversion, Emma

HONORS & ACTIVITIES:

- Organized Bilkent Alumni Activities in Seattle
- Founder & President (2001-2004) of Cleveland Turkish Community
- Ranked 63rd in Turkish Graduate Record Examination among 30.000 graduate students in 2000
- Ranked 225th in Turkish University Entrance Exam (OYS) among 1.5 million students in 1996
- Ranked 13th in Turkey Chess Championship
- Member of National Physics Olympiad Team in 1995

COURSES/SEMINARS ATTENDED:

- **METU, Turkey (2009-2010):** Software Size Estimation using COSMIC(Common Software Measurement International Consortium), ISO 12207/CMMI training
- **Microsoft, USA (2007-2009):** Peer Review, Software Estimation, Programming in C#, Software Engineering Orientation for new developers, Software Debugging, API Design
- **Howard Hughes Medical Institute (2004-2007), USA:** Introduction to Bioinformatics, Linux Basics and Administration

SUMMARY OF COMPETENCIES:

- An intrapreneur always looking for innovative project ideas, and process improvement opportunities
- Deep understanding of Microsoft technology stack
- Experience in Knowledge Management methodologies in the enterprise
- Research-Minded focus with strong analytical skills proven with various publications in different domains
- Experience in Software development using Software Product Line/Software reuse principles
- Deep understanding of different Software Development Process Methodologies (ISO 12207 / ISO 15504 /CMMI) and Application Life-cycle Management Tools
- Experience in Bioinformatics algorithm & software development
- Ability to work in multi-cultural environments

SELECTED PUBLICATIONS:

- **Multidimensional Classification Approach for Defining Product Line Engineering Transition Strategies**
B. Tekinerdoğan, E. Tüzün, E. Şaykol.
Proc. of the 14th International Software Product Line Conference (SPLC 2010), Korea LNCS 6287, pp. 461–465, September 2010.
- **Exploring the Business Case for Transitioning from a Framework-based Approach to a Software Product Line Engineering Approach**
B. Tekinerdoğan, E. Tüzün, E. Şaykol.
Proc. of the 14th International Software Product Line Conference, Vol. 2, Industrial Track, pp. 251-255, September 2010.
- **Yazılım Klonları, Oluşum Nedenleri ve Mücadele Yöntemleri Üzerine Bir İnceleme**
Eray Tüzün, Emre Er, Buyurman Baykal.
2. Yazılım Kalitesi ve Yazılım Geliştirme Araçları Sempozyumu 2010
- **A Data-Centric Framework for Network Enabled C4ISR Software Systems**
Karaca, H.N., Yüksel M., Tüzün E., Kılınç, I., Baykal B.
Lectures Notes in Electrical Engineering ISCIS 2010, Springer Belin, Volume 62, 978-90-481-9793-4, pp 173-176, October 24, 2010.
- **Fine-Scale Structural Variation of the Human Genome.**
Tuzun E, Sharp AJ, Bailey JA, Kaul R, Morrison VA, Pertz LM, Haugen E, Hayden H, Albertson D, Pinkel D, Olson MV, Eichler EE.
Nat Genet. 2005 Jul;37(7):727-32. Epub 2005 May 15. (Cited By 560 papers)
(The first study to implement a paired-end sequencing approach to study structural variation.)
- **Manipulating multiple sequence alignments via MaM and WebMaM.**
Alkan C, **Tuzun E**, Buard J, Lethiec F, Eichler EE, Bailey JA, Sahinalp SC.
Nucleic Acids Res 2005 Jul 1;33(Web Server issue):W295-8.
- **A genome-wide survey of structural variation between human and chimpanzee.**
Newman TL, **Tuzun E**, Morrison A, Hayden KE, Ventura M, McGrath SD, Rocchi M, Eichler EE.
Genome Res. 2005 Oct;15(10):1344-56. Epub 2005 Sep 16
- **Recent segmental duplications in the working draft assembly of the brown norway rat.**
Tuzun, E, Bailey, J. A, Eichler, EE.
Genome Research 2004 Apr;14(4):493-506