Ekrem Kocaguneli

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LCSEE
West Virginia University
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Education

- West Virginia University, (2010 - 2012 (Expected)), Morgantown/USA, PhD in Computer Science, 3.85/4.00
- Bogazici University, (2008 - 2010), Istanbul/Turkey, MSc in Computer Engineering (High Honors), 3.65/4.00, Thesis: *"Better Methods for Configuring Case-based Reasoning Systems"*
- Bogazici University, (2004 - 2008), Istanbul/Turkey, BSc in Computer Engineering (Honors), 3.23/4.00
- University of Bonn, (2006 - 2007), Bonn/Germany, Exchange Student

Employment

- West Virginia University Modeling Intelligence Lab.-USA, (15.01.2010 Current)

  Phd Candidate (ABD) and Graduate Research Assistant: Researching on the applications of data mining and data analytics solutions to emerging software effort estimation problems.

- Hong Kong Polytechnic University-Hong Kong, (01.07.2011 01.08.2011)

  Visiting Researcher at the Department of Computing: Worked to finalize an ongoing research project on maximum prediction accuracy of case-based reasoning methods in software effort estimation.

- Bogazici University Software Research Laboratory-Turkey, (14.07.2008 30.12.2009)

  Researcher at Software Research Laboratory (SoftLab) in the Department of Computer Engineering: Participated in 4 industry collaborated projects as a team lead and team member. Provided practical solutions of data mining and data analytics to vaguely defined industry problems.

- Inveon Software Development House-Turkey, (14.04.2008-11.07.2008)

  Part-time software development specialist using ASP.NET: Worked as a developer for CRM applications using C# on an ASP.NET platform.

- SAP AG-Germany, (18.07.2007-28.09.2007)

  Intern for SAP-Volume Business Model (VBM) Project at SL Enterprise Solutions Office of the CEO Department: Generated test cases for SAP Netweaver Business Intelligence. Developed simple queries using BW query design tool. Wrote basic reports using ABAP.

- BOSCH-Turkey, (03.07.2006-01.09.2006)

  Intern for SAP-Archiving Project at Bosch IT Department: Carried out archiving project for different departments that use different SAP-ERP modules. Generated basic programs and reports using ABAP.

Participated Projects

- IBTech, (April 2009 − December 2009), Team Lead

  An industry-research project to design and implement a software effort prediction model for IBTech (development subsidiary of an international bank): Defined business user needs and proposed solutions through meetings with domain experts. Initiated and finalized data collection project from various business user groups. Built a machine learning-based estimation model for software development effort using the collected data. Presented research progress and results at monthly milestone meetings to managers.

- Turkcell, (2007 − 2009), Team Member

  An industry-research project to develop a measurement and defect prediction model for Turkcell (the biggest GSM provider in Turkey): Collected various metrics such as churn metrics and developer commit information from software repositories. Defined how data can be analyzed for the interest of upper-level management and performed the analysis. Presented results to department managers at monthly milestone meetings.

- Aras Logistics, (2008), Team Member

  An industry-research project to conduct the assessment of a legacy software and the software development processes: Derived and analyzed software quality metrics. Presented analysis results to upper management.

- Xiruxe, Turkcell, (2008 - 2009), Team Member

  An industry-research project to develop an intelligent fault localization tool: Collected data and information from business users, developers and software repositories. Cleaned and analyzed the collected data. Helped to build a fault localization model based on machine learning. Transferred the model to business users and developers for implementation.

Journal Publications

- J. Keung, E. Kocaguneli, T. Menzies, *"A Ranking Stability Indicator for Selecting the Best Effort Estimator in Software Cost Estimation"*, Journal of Automated Software Engineering, 2012.
- E. Kocaguneli, T. Menzies, J. Keung, *"On the Value of Ensemble Effort Estimation"*, IEEE Transactions on Software Engineering, 2011.
- E. Kocaguneli, T. Menzies, A. Bener, J. Keung, "Exploiting the Essential Assumptions of Analogy-based Effort Estimation", IEEE Transactions on Software Engineering, 2011.
- E. Kocaguneli, T. Menzies, J. Keung, *"Kernel Methods for Software Effort Estimation"*, Empirical Software Engineering Journal, 2011.
- A. Brady, T. Menzies, E. Kocaguneli, "What Is Enough Quality for Data Repositories?", Software Quality Professional, 2011.

Under Review Journal Publications

- E. Kocaguneli, J. Keung, T. Menzies *"Towards Theoretical Maximum Prediction Accuracy Using D-ABE"*, submitted.
- E. Kocaguneli, T. Menzies, J. Keung, *"Active Learning for Effort Estimation"*, under second round review.
- E. Kocaguneli, T. Menzies, *"Software Effort Models Should be Assessed Via Leave-One-Out Validation"*, submitted.

Conference Publications

- E. Kocaguneli, T. Menzies, *"Size Doesn't Matter? On the Value of Software Size Features for Effort Estimation"*, International Conference on Predictive Models in Software Engineering (PROMISE) 2012

- E. Kocaguneli, T. Menzies, *"How to Find Relevant Data for Effort Estimation"*, International Symposium on Empirical Software Engineering and Measurement (ESEM) 2011

- E. Kocaguneli, B.Caglayan, A. Tosun, A. Bener, *"Experiences on Developer Participation and Effort Estimation"*, EUROMICRO Conference on Software Engineering and Advanced Applications (SEAA) 2011

- E. Kocaguneli, G. Gay, Y. Yang, T. Menzies, *"When to Use Data from Other Projects for Effort Estimation"*, International Conference on Automated Software Engineering (ASE) 2010

- E. Kocaguneli, A. Tosun, A. Bener, *"AI-Based Models for Software Effort Estimation"*, 36th EUROMICRO Conference on Software Engineering and Advanced Applications (SEAA) 2010

- E. Kocaguneli, Y. Kultur, A. Bener, *"Combining Multiple Learners Induced on Multiple Datasets for Software Effort Prediction"*, Proceedings of International Symposium on Software Reliability Engineering (ISSRE) 2009.

- E. Kocaguneli, A. Tosun, A. Bener, B. Turhan, B. Caglayan, *"Prest: An Intelligent Software Metrics Extraction, Analysis and Defect Prediction Tool"*, Proceedings of International Conference on Software Engineering and Knowledge Engineering (SEKE) 2009.

- Ayse Tosun, Ayse Bener, Ekrem Kocaguneli, *"BITS: Issue Tracking and Project Management Tool in Healthcare Software Development"*, Proceedings of International Conference on Software Engineering and Knowledge Engineering (SEKE) 2009.

- A. Bakir, E. Kocaguneli, A. Tosun, A.Bener and B. Turhan *"Xiruxe: An Intelligent Fault Tracking Tool"*, Proceedings of International Conference on Artificial Intelligence and Pattern Recognition (AIPR) 2009.

- Y. Kultur, E. Kocaguneli, A. Bener, *"Discovering Cost Related Features: Focus on Classification Models"*, Poster Paper in Empirical Software Engineering and Measurement (ESEM) 2009.

- E. Kocaguneli, A. Tosun, B. Caglayan, A. Bener, T. Aytac, B. Turhan, *"Bulutlarda Akilli Bir Yazilim Olcumleme, Hata Analiz ve Tahmin Araci: Prest"*, (in Turkish), 2nd National Symposium on Software Engineering (UYMS) 2009

- Y. Kultur, E. Kocaguneli, A. Bener, *"Domain Specific Phase by Phase Effort Estimation in Software Projects"*, Proceedings of International Symposium on Computer and Information Sciences (ISCIS) 2009.

Service

- Volunteer, West Virginia University International Home-start Closet (http://homestart.wvu.edu/) (2010 - Current)

- Webmaster, Website of Promise repository (http://promisedata.org/) (2010 - 2011)

- Vice President, West Virginia University Turkish Student Organization (2010 - 2011)

- Webmaster, Software Engineering Laboratory (www.softlab.boun.edu.tr) at Bogazici University (2008 - 2009)

- Team Leader, Implementing Circulating Capital Project for Finance Dept. of the Bogazici University: Responsible for a developer team of 30 computer engineering seniors (2008)

- Vice Editor, Steps-Magazine of Bogazici University Engineering Society (2004-2005)

Skills

- Programs: WEKA (advanced), MS-Word (advanced), Excel (advanced), PowerPoint (advanced)
- Programming Languages: Java, MATLAB, R, C/C++, ASP.NET, C#, SQL, HTML
- Languages:
  - English : Fluent spoken & written
  - German : Advanced (C2)
  - Turkish : Mother Tongue