

# Oner Ulvi Celepcikay

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## Objective:

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Seeking Faculty Position in Computer Science Department

## Research and Teaching Fields:

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My main research and teaching interests lie in the field of data mining, knowledge discovery, database management systems, object oriented analysis and design, web programming, programming languages and other computer science fields.

## Education:

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- Ph.D. Computer Science, University of Houston, Houston, TX, USA Dec 2009
- M.S. Computer Science, University of Houston, Houston, TX, USA May 2003
- B.S. Electrical Engineering, Istanbul University, Istanbul, Turkey Jun 1997

## Refereed Publications:

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- **Celepcikay, O.**, Eick, C. A Generic to Estimate Generalization Error of Geo-Regression Techniques, under preparation to be submitted to IEEE Transactions on Data Mining and Knowledge Discovery, 2012.
- **Celepcikay, O.**, Eick, C., REG<sup>2</sup>: A Regional Regression Framework for Geo-Referenced Datasets, 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM GIS 2009), Seattle.
- **Celepcikay, O.**, Eick, C., Ordonez, C. *Discovering Regional Patterns in Geo-referenced Datasets Using PCA*, 7th Industrial Conference on Machine Learning and Data Mining, MLDM 2009, Germany.
- A. Bagherjeiran, **O.U. Celepcikay**, R. Jiamthaphaksin, C. Chen, V. Rinsurongkawong, S. Lee, J. Thomas, and C. F. Eick, *Cougar<sup>2</sup>: An Open Source Machine Learning and Data Mining Development Framework*, Proc. Open Source Data Mining Workshop (OSDM), Bangkok, Thailand, April 2009.
- **Celepcikay, O.**, Eick, C. *A Regional Pattern Discovery Framework using Principal Component Analysis*, International Conference on Multivariate Statistical Modeling & High Dimensional Data Mining, HDM 2008, Kayseri, June 2008.
- Choo, J., Jiamthaphaksin, R., Chen, C., **Celepcikay, O.**, Giusti, C., and Eick, C., *MOSAIC :A Proximity Graph Approach to Agglomerative Clustering*, in Proc. of the 9th Intl. Conf. on Data Warehousing and Knowledge Discovery DaWaK, Regensburg, Germany, September 2007.

## Book Chapters:

- Jiamthaphaksin, R., Choo, J., Chen, C., **Celepcikay, O.**, Giusti, C., and Eick, C., *MOSAIC: Agglomerative Clustering with Gabriel Graphs*, a book chapter in *Complex Data Warehousing and Knowledge Discovery for Advanced Retrieval Development: Innovative Methods and Applications*, IGI Press, USA, ISBN: 1935-2646.

## Professional Experience:

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**Adjunct Faculty** Aug'2015 – Present  
*Texas A&M University - Commerce – Computer Science Department* Houston, TX

**Adjunct Faculty** Jan'2015 – Present  
*University of Houston Downtown – Computer Science Department* Houston, TX

**Founder & CEO** Sep'2015 – Present  
*InnovED Education & Technology Solutions, LLC [www.innovedtech.com](http://www.innovedtech.com)* Houston, TX

- Developing EdTech solutions for K-12 schools including STEM camps, Robotics and Programming camps, and cyber security curriculum.

**Adjunct Faculty** Mar'2011 – Dec' 2014  
*University of Phoenix, Business Information Systems Department* Houston, TX

**Web Application Developer** May 2013 – Present  
*WorldMax Group LLC* Houston TX

- Developing e-commerce site of the company using ASP.NET
- Search Engine Optimization (SEO) and social media marketing support

**Web Application Developer** May 2008 – Dec 2012  
*TAC Trade Inc* Houston TX

- Developing e-commerce site of the company ([www.turkiyetel.com](http://www.turkiyetel.com)) using ASP, SQL, SOAP and XML
- Developing various web applications needed for customers including: automatic recharge of prepaid phone cards, speed dial application, painless dial application

**Program Director & Instructor** Aug 2007 – Sep 2009  
*Texas Gulf Institute* Houston, TX

- Directing "Microsoft Office Specialist (MOS) & School Office and Technology Assistant" programs
- Leading a team of five in developing computer science portion including curriculum of new college application for "North American College to the Texas Higher Education Coordinating Board
- Developing "Institutional Effectiveness Plan" for Computer Science Department

**Graduate Technology Assistant** Sep 2000 – Aug 2007  
*Distance Education Dept., University of Houston* Houston, TX

- Assisting faculty members with development of their online courses using WebCT & Blackboard
- Conducting regular trainings and workshops for faculty members on how to use WebCT & Blackboard
- Developing online classes with tests and quizzes using Dreamweaver, Flash, and Photoshop

**System Analyst** Sep 1998 – Dec 1999  
*DIS Trade Bank (now FORTIS BANK)* Istanbul, Turkey

- Established and maintained of P.O.S. systems for DIS Bank member merchants
- Assisted in maintenance and administration of LAN with 25 clients (NT Workstations)

## Research and Education Grant Write Ups:

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### **Department of Education (USA) Grant: \$4,700,000** Sep 2011

- Participated in a team of 3 people in grant writing and data analysis process of Department of Education (USA) Grant for Harmony Public Schools to replicate high-quality charter schools.
- The funds are being used to replicate our school model and open 7 more schools in 3 years.

### **Texas Charter Schools Startup Grant: \$450,000** 2007, 2008, & 2009

- Along with the Superintendent of Schools, led the efforts to write and apply for these grants.
- These competitive grants were received as \$450,000 per new campus at the beginning of their 1st year.

### **Texas Infrastructure Funds Grant: \$50,000** May 2001

- Lead a group of three people in effort of writing this grant to fund proposed technological project.
- The funds enabled the school (only one Harmony campus existed) to purchase a mobile wireless lab - a mobile cart with 24 laptops with wireless connection.

## Instructional Development & Productions:

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### **Curriculum and Degree Plan Developments**

- Lead a group of computer scientist to develop curriculum and degree plan for 4-year degree in computer science program for North American College (2009).

### **Program Development**

- Developed the "Technology Assistant Certificate of Completion Program (TACCP)" at Texas Gulf Institute (2008).
- Developed the Computer Science components of "School Office and Technology Assistant (SOTA)" program at Texas Gulf Institute (2009).
- Handled the program accreditation process through Texas Workforce Commission (2008).
- Developed a program to prepare student for "Microsoft Office Specialist (MOS)" Exams and conducting the process to become a "Authorized Testing Center for MOS" (2008).

### **Educational & Administrative Material Productions**

- **Corporate Catalog** personally developed for Harmony Public Schools (2010).
- **School Catalog** personally developed for Texas Gulf Institute (2008-2009).
- **Faculty Handbook** personally developed for the 1st Academic year of North American College (2009).
- **Harmony Business Plan**: as Board President, led the efforts in developing the business plan by BridgeSpan Inc. with funding from Bill & Melinda Gates Foundation in the amount of \$360,000.

## Academic Services:

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### **Reviewer**

- 2009 IEEE TKDE Journal, May 2009
- 2009 International Conference on Machine Learning and Data Mining (MLDM)
- 2006 & 2007 IEEE International Conference on Data Mining (ICDM)
- 2007 International Conference on Machine Learning and Data Mining (MLDM)

### **Associate Editor**

- European Journal of Pure and Applied Mathematics, [www.ejpm.com](http://www.ejpm.com) 2008 - present

### **Session Chair**

- International Conference on Multivariate Statistical Modeling and Data Mining (HDM-2008), June'08
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## Projects:

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### **COUGAR<sup>2</sup>: An Open Source Machine Learning and Data Mining Development Platform** 2008

- Participated in development of Cougar<sup>2</sup>, an innovative open source Java framework and toolset that assists researchers in designing, developing, and using machine learning and data mining algorithms.
- Cougar<sup>2</sup>, <https://cougarsquared.dev.java.net> provides an intuitive API to make entire experiments (datasets, algorithms, and experiment configuration) available for exact replication of research results.

### **Dolphin.NET:** 2003

- Developed Dolphin.NET, a network engine for peer to peer applications, an XML Web Service to expose functionality for game software developers to plug-in their applications to enable them networking capabilities such as locating peers and other applications
- Successfully implemented to convert stand-alone tic-tac-toe type game to an online network game, a text program to online texting & chat program and a small application to online auction application

### **EZ Online Banking:** 2002

- A client-server application, developed by using JAVA and RMI to provide online banking functionalities

## Memberships & Other Assignments:

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### **Board President** 2003 - present

Harmony Public Schools: [www.harmonytx.org](http://www.harmonytx.org)

- Joined Harmony when there were only 2 schools and led the growth efforts that resulted in it being the largest charter school system in Texas with 38 campuses with nation-wide success stories including recently being selected as one of the 16 districts nationwide to receive Race-To-Top-District (RTT-D) grant in the amount of nearly \$30,000,000 and one of the "Top 10 Miracle Schools" by Newsweek.
- Coordinate major outreach activities to contact state senators and representatives, mayors, secretary of the US Department of Education, and other VIPs, and facilitate hosting them at our schools.

### **Board Member** Feb 2013 - present

Region IV Education Center [www.esc4.net](http://www.esc4.net)

- Region IV ESC, under Texas Education Agency provides services to 55 School Districts in Texas.

### **Member**

- IEEE Computer Science Society Jun 2006 - present
- U.S. Congressman Ted Poe Immigration Bill Writing Task Force May 2010 - Jul 2011
- National Geographic Society Jan 2009 - Jan 2011

## Event Organized:

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### **I-SWEEEP** [www.isweeep.org](http://www.isweeep.org) May 2010 & 2011

- Putting together and running the biggest international science project competition in United States.
- I-SWEEEP, The International Sustainable World (Energy, Engineering, and Environment) Project, gets representation of middle and high school students from 70 countries and 46 states.

### **Innovation in STEM Education Conference** <http://stem.harmonytx.org> Nov 2011

- Organized the 1st Annual STEM Conference by Harmony Public Schools which hosted Rod Paige former secretary of US department of Education, University Presidents and other VIPs.
- Brought together the academia, public education institutions, the business world, and the philanthropists to share best practices to improve STEM Education quality in public education.



### Certificates & Training:

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▪ Cyber Security Technology Applications	MIT	In Progress
▪ R Programming	John Hopkins University MOOC	Dec 2014
▪ Governing for Non-Profit Excellence	Harvard Business School	Oct 2014
▪ Microsoft Office Specialist, Expert	Microsoft	Jan 2009
▪ Adobe Web Designer	Adobe	May 2008
▪ Information Technologist	Middle East Tech. University	Dec 1999

### Honors & Awards:

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▪ Outstanding Contribution to Education Award - Public Education Category, HPS	May 2011
▪ Graduate Fellowship, University of Houston	2000-2006

### Talks & Presentations:

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▪ Technology in Instruction, North American College	Dec 2009
▪ Social Media for New Businesses	May 2011
▪ Advanced Excel for Math Teachers, Summer Workshops, HPS Math Dept.HPS	Aug 2009

### References:

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- **Dr. Bill Flores**  
*President, University of Houston-Downtown*  
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- **Dr. Marshall Schott**  
*Associate Vice Chancellor, Academic Affairs, Lone Star College System*  
Email: [Marshall.E.Schott@LoneStar.edu](mailto:Marshall.E.Schott@LoneStar.edu) | Phone: (832) 813 6272
- **Dr. Christoph F. Eick (Ph.D. Advisor)**  
*Associate Professor, Computer Science Dept., University of Houston*  
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