

Kayhan Dursun

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PERSONAL STATEMENTS

A Computer Science Ph.D. candidate at Brown University. I am looking for opportunities to address important research questions and to work on novel techniques for data management systems. My current work focuses on efficient query processing techniques on modern processor environments.

EDUCATION

Brown University, Providence, Rhode Island, USA

Doctor of Philosophy in Computer Science

Sep 2014- Oct 2019

Master of Science in Computer Science

Sep 2012- Jul 2014

- Advisor: Professor Ugur Cetintemel
- Research area: Big data management and analytics.

TOBB Economics and Technology University, Cankaya, Ankara, Turkey

Master of Science in Computer Engineering

Sep 2010- May 2012

Bachelor of Science in Computer Engineering

Sep 2005- May 2010

- Cumulative GPA: 3.74 / 4.00

EXPERIENCE

Brown University, Providence, RI, USA

Research and Teaching Assistant

Sep 2012- Present

- Research Assistant in the Data Management Group

Microsoft Research, Redmond, WA, USA

Research Intern

Jun 2017- Sep 2017

- Database Group, Supervised by Yanan Li

TOBB Economics and Technology University, Ankara, Turkey

Research and Teaching Assistant

Sep 2010- May 2012

- Research Assistant in Data Mining and Data Management Group
- Head Teaching Assistant for various classes

SIEMENS EC, Ankara, Turkey

Software Development Intern

Jan 2007- May 2007

PUBLICATIONS

- 9) [K. Dursun](#), U. Cetintemel, C. Binnig, "Accelerating Raw Data Processing using Hybrid CPU + FPGA Architectures", *under submission*, Sep 2019.
- 8) [K. Dursun](#), C. Binnig, U. Cetintemel, "A Morsel-Driven Query Execution Engine for Heterogeneous Multi-Cores", in *PVLDB*, vol. 12, pp. 2218–2229, Aug 2019.
- 7) [K. Dursun](#), C. Binnig, U. Cetintemel and R. Petrocelli, "SiliconDB: Rethinking DBMSs for modern heterogeneous co-processor environments," in *DAMON 17*, Chicago, USA, May 2017.
- 6) [K. Dursun](#), C. Binnig, U. Cetintemel and T. Kraska, "Revisiting Reuse In Main Memory Database Systems," in *Proceedings of ACM SIGMOD*, Chicago, USA, May 2017.
- 5) A. Crotty, A. Galakatos, [K. Dursun](#), T. Kraska, C. Binnig, U. Cetintemel and S. Zdonik "An Architecture for Compiling UDF-centric Workflows," in *PVLDB*, vol. 8, pp. 1466–1477, Sep 2015.
- 4) A. Crotty, A. Galakatos, [K. Dursun](#), T. Kraska, U. Cetintemel and S. Zdonik "Tupleware: "Big" Data, Big Analytics, Small Clusters," in *CIDR*, Jan 2015.
- 3) S. Ozyer, B. Tavli, [K. Dursun](#) and M. Koyuncu "Systematic investigation of the effects of unidirectional links on the lifetime of wireless sensor networks," *Computer Standards and Interfaces*, vol. 36, pp. 132–142, Jan 2013.
- 2) O. Sert, [K. Dursun](#), T. Ozyer, J. Jida and R. Alhajj "The Unification and Assessment of Multi-Objective Clustering Results of Categorical Datasets with H-Confidence Metric," *JUCS*, vol. 18, pp. 507–531, Jan 2012.
- 1) O. Sert, [K. Dursun](#) and T. Ozyer "Ensemble of Multi-objective Clustering Unified with H-Confidence Metric as Validity Metric," *ASONAM*, vol. 18, pp. 537–541, Jul 2011.

ACTIVITIES

Brown University

- Nominated and Elected as the Faculty Grad Liason. Jul 2016– Feb 2018
Responsible for relations between faculty and 170 grad students in the CS Department.
- Served as the DB-group meeting chair, DB-group social activity organizer, departmental soccer team captain for several semesters.
- Served as the Grad TA for the following classes:
 - Interacting with Big Data: Human-in-the-Loop Systems, Exploration and Visualization Fall 2015
 - Topics in Data Science Fall 2013

TOBB Economics and Technology University

- Served as the Head Teaching Assistant, Lab-Instructor for various classes:
 - Database Management Systems (co-taught with the professor) Summer 2012
 - Programming with C/C++ Spring 2012 and Spring 2011
 - Programming with Java Fall 2010 and Fall 2011
 - Data Mining Spring 2012
 - Object-Oriented Design and Programming Summer 2011
 - Web Database Applications Fall 2010 and Summer 2011
 - Discrete Mathematics Spring 2011

HONORS & AWARDS

Brown University Graduate School Fellowship 2012
Graduation with high honors and the 1st rank in the department (75 students in total) 2010
Superior Achievement Scholarship 2007-2010

LANGUAGES

English: Fluent proficiency.
Spanish: Intermediate proficiency.
Turkish: Native proficiency.

REFERENCES

Professor Ugur Cetintemel

Professor of Computer Science
Brown University
Department of Computer Science
115 Waterman St., Providence, RI, USA, 02912
ugur@cs.brown.edu

Professor Carsten Binnig

Professor of Computer Science
Technische Universität Darmstadt
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Hochschulstr. 10, Darmstadt, Germany 64289
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Professor Tansel Ozyer

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