

<b>Research Interests</b>	Monitoring and Management of Large-Scale Systems and Software, Machine Learning, Data Analysis, Cloud Computing, High Performance Computing	
<b>Education</b>	<b>Boston University, Electrical and Computer Engineering Dept.</b> 2015 - Present PhD in Computer Engineering (Advisor: Prof. Ayşe K. Coşkun) GPA: 3.93 <b>Coursework:</b> Advanced Data Structures, Computer Architecture, Digital Design, Embedded Systems, Data Mining, Operating Systems, Cybersecurity, Advanced Computer Systems  <b>Middle East Technical University (METU), Turkey</b> 2010 - 2015 B.S. in Electrical and Electronics Engineering GPA: 3.23, Ranking: 37 <sup>th</sup> /353 Minor in History of Philosophy GPA: 3.50	
<b>Research Experience</b>	<b>PeacLab Research Group</b> , Boston, MA <i>September 2015 – present</i> Researched on data center monitoring and analytics, interference in HPC and cloud systems, end-to-end tracing of distributed applications.  <b>BioMEMS Research Group</b> , Ankara, Turkey <i>June 2014 – June 2015</i> Improved sensing circuitry of a MEMS based Coulter counter.	
<b>Software Skills</b>	<i>Programming Languages:</i> Verilog, C, C++, Java, Python, Perl, R, Bash (and other shell) <i>Environments and Tools:</i> OpenStack, scikit-learn, Vowpal Wabbit, Autotools, L <sup>A</sup> T <sub>E</sub> X	
<b>Publications</b>	Ozan Tuncer, <b>Emre Ates</b> , Yijia Zhang, Ata Turk, Jim Brandt, Vitus Leung, Manuel Egele, Ayse K. Coskun, “Online Diagnosis of Performance Variation in HPC Systems Using Machine Learning,” to appear in <i>IEEE Trans. on Parallel and Distributed Computing</i> (TPDS), 2018.  Qingqing Xiong, <b>Emre Ates</b> , Martin C. Herbordt, Ayse K. Coskun, “Tangram: Colocating HPC Applications with Oversubscription,” to appear in <i>IEEE High Performance Extreme Computing Conf.</i> (HPEC), Boston, 2018.  <b>Emre Ates</b> , Ozan Tuncer, Ata Turk, Jim Brandt, Vitus Leung, Manuel Egele, Ayse K. Coskun, “Taxonomist: Application Detection through Rich Monitoring Data,” to appear in <i>European Conf. on Parallel and Distributed Systems</i> (Euro-Par), Torino, 2018.  Ozan Tuncer, <b>Emre Ates</b> , Yijia Zhang, Ata Turk, Jim Brandt, Vitus Leung, Manuel Egele, Ayse K. Coskun, “Diagnosing Performance Variations in HPC Applications using Machine Learning,” in <i>Int. Supercomputing Conf.</i> (ISC-HPC), Frankfurt, 2017.	
<b>Internships</b>	<b>Lawrence Livermore National Laboratory</b> , Livermore, CA <i>Summer 2017</i> Investigated the effect of power, network QoS, external traffic, number of processes, etc. on different supercomputing benchmarks, used machine learning to model performance.  <b>Sandia National Laboratories</b> , Albuquerque, NM <i>Summer 2016</i> Analyzed system monitoring data to automatically detect and classify anomalies in HPC clusters. Investigated allocation and task mapping algorithms for dragonfly systems.  <b>ASELSAN AŞ</b> (Military Electronic Industries), Ankara, Turkey <i>Summer 2013</i> Improved the performance of an existing 2D radar simulation to make 3D simulations feasible.	
<b>Teaching Experience</b>	<b>Applied Algorithms and Data Structures</b> , Boston University <i>Spring 2016, Fall 2016</i> Head TA; held weekly discussion sessions, graded exams/assignments, coordinated the graders.	
<b>Awards and Scholarships</b>	<b>Gauss Award</b> at ISC-HPC June 2017 Research paper award given by German Gauss Center for Supercomputing  <b>Bülent Kerim Altay Award</b> METU Spring 2011 For achieving 4.0 GPA	
<b>Invited Talks</b>	“Diagnosing Performance Variations in HPC Applications Using Machine Learning”, Lawrence Berkeley National Laboratory - NERSC, July 2017.	