


# Mert Erdemir

✉ [mert-erdemir@uiowa.edu](mailto:mert-erdemir@uiowa.edu)

 [mert-erdemir](#)

 [merterdemir](#)

## Education

August 2019 - **MCS, Computer Science**, *University of Iowa*, Iowa, USA.

May 2021 cGPA: 3,56/4,00

(Expected)

October 2014 - **B.S., Computer Engineering**, *Middle East Technical University*, Ankara, Turkey.

- July 2019 cGPA: 3,51/4,00

## Experience

August 2019 - **Graduate Teaching Assistant**, *Computer Science Department*, University of Iowa, Iowa, USA.

- CS1210: Computer Science I: Fundamentals
  - Leading Discussion Classes
  - Tutoring students

September 2017 - **Undergraduate Teaching Assistant**, *Computer Engineering Department*, Middle East Technical University, Ankara, Turkey.

- CENG213: Data Structures
  - Preparing laboratory material, homework and homework related laboratory quizzes
  - Teaching students in laboratory and discussions about hashing topic
- CENG229: C Programming
  - Tutoring and teaching students in discussions
- CENG232: Logic Design
  - Collaboration with TA's in homework preparation processes
  - Tutoring and teaching students in discussions

June 2017 - **Software Engineering Intern**, *NETCAD YAZILIM AŞ.*, Ankara, Turkey.

- Implementation of GIT version control system for the company's code repository
- Spatial data management and conversion between data models (vector/raster)

## Research Projects

- June 2018 - Present **TEGHUB**: Participated in modeling online resources, such as news web sites and social media posts in graph structure, and performing information extraction on these graphs via text/data mining, event detection/event extraction based on the relationships among events. The open source product provides compatibility with graph databases from various vendors and to comply with the standardization efforts by Apache open source community for graph database query languages. The project is funded by TUBITAK (NSF for Turkey).
- October 2018 - July 2019 **ARTEMIS (A Near Real-Time Monitoring and Intrusion Detection System for IoT)**: Developed a monitoring and intrusion detection tool, anomaly detection algorithms and visualization of the network traffic for different IoT devices, networks and protocols.
- October 2018 - January 2019 **DUPDET (Detection of Duplicate Questions in Quora)**: Participated in the development of a new method to detect duplicate questions in Quora with RNN and LSTM models. The project will provide the feature of informing user, who asks questions, in the case of a match with existing questions in the aspect of not only the syntax but also the semantics.
- October 2017 - November 2017 **Basic Unity Database Management System**: Developed a user-friendly interface and database application for beginner programmers to get familiar to database systems, basic object-oriented programming skills and graphical user interface design.
- April 2017 - Present **Rhygun**: Developed A 3D multiplayer first person shooter game being developed on Unity that is based on playing the game by reacting to the music on the background.
- September 2016 - Present **METUMECH ROV (Remotely Operated Underwater Vehicle)**: Participated in the design and manufacturing of an underwater vehicle which is capable of observing and implementing tasks given by MATE (Marine Advanced Technology Education) and controlling it by MATLAB based GUI.

## Publications

- Conference Papers ○ M. Erdemir, F. Goz, A. Mutlu, P. Karagoz, *Comparison of Querying Performance of Neo4j on Graph and Hyper-graph Data Model*, IC3K19 - KDIR19, September 2019

Book Chapters ○ B. Yilmaz, H. Genc, M. Agriman, B. Kaan Demirdover, M. Erdemir, G. Simsek, P. Karagoz, *Recent Trends in the Use of Graph Neural Network Models for Natural Language Processing*, in *Deep Learning Techniques and Optimization Strategies in Big Data Analytics*, edited by J. Joshua Thomas, P. Karagoz, B. Bazeer Ahamed and P. Vasant, IGI Global, pp.274-289, November 2019, DOI: 10.4018/978-1-7998-1192-3.ch016.

Poster Presentations ○ P. Angin, E. Ciklabakkal, A. Donmez, M. Erdemir, E. Suren, M. Kaan Yilmaz, *ARTEMIS: An Intrusion Detection System for MQTT Attacks in Internet of Things*, SRDS 2019.

## Skills

Languages C, C++, C#, Python, PHP, MATLAB, Haskell, Prolog, LaTeX, SQL, Cypher, Javascript, NodeJS, Swift, Bash, HTML, CSS

Technologies Neo4j, PostgreSQL, NumPy, scikit-learn, Keras, Tensorflow, Jupyter Notebook, OpenGL, Apache Spark, OpenLayers, LINDO, Unity, NLTK

Operating Systems UNIX, LINUX, Mac OS X, Windows

## Examinations, Scholarships, Awards & Honors

Examinations ○ TOEFL iBT Score: 98  
○ GRE Score: Verbal Reasoning-150, Quantitative Reasoning-168, Analytical Writing-3.0

Scholarships ○ 2014 - Sema Yazar Youth Foundation Academic Success Scholarship

Awards & Honors ○ 2017 - Academic Personnel and Postgraduate Education Entrance Exam (ALES, Turkey), top %0.2 out of 222.000 examinees  
○ 2014 - National University Entrance Exam (Turkey), top %0.1 out of 2.5 million examinees