



# Cem Mutlu

Software Developer / Electronics Engineer

Software developer with thorough hands-on experience in all levels of development, including performance, analysis, back-end and front-end development. I am a supportive and enthusiastic team member and always excited about new challenges.

**Date of birth**  
29 Sep 1991  
**Marital Status**  
Married  
**Military Status**  
Exempt

+905354161951  
linkedin.com/in/cem-mutlu  
github.com/cemmutlu  
hackerrank.com/cem\_mutlu

cem.mutlu@outlook.com  
www.cemmutlu.com  
stackoverflow.com/users/2651417

## Education

- 2018** • **Computational Science and Eng.** Feb 2018 - Now (1 years 6 months)  
 Istanbul Technical University [www.itu.edu.tr](http://www.itu.edu.tr)  
 Master of Science  
 • MPI • OpenMP • Octave • Python
- 2009** • **Electronics Engineering** Sep 2009 - Jul 2015 (5 years 11 months)  
 Istanbul Technical University [www.itu.edu.tr](http://www.itu.edu.tr)  
 Bachelor of Science  
 GPA:2.5/4

## Experiences

- 2016** • **Lead Software Developer** Sep 2016 - Now (2 years 11 months)  
 Apsiyon [www.apsiyon.com](http://www.apsiyon.com)  
 Lead a team of 5  
 Software design and development for a web based ERP tool  
 Modified existing Web Forms project to fix errors and improve Performance  
 Researched, designed, and implemented scalable new .NET Core project  
 Wrote maintainable and extensible code in a team environment  
 Implemented a unified authentication project that is used for all products  
 • .Net Core • C# • ASP.NET Webforms • ASP.NET Web API  
 • ASP.NET MVC • Angular 5 • MongoDB • Redis  
 • MsSQL • Scrum • MsSQL • TSQL  
 • OAuth2 • TFS • EF Core • TDD

**2015** ● **Lead Software Developer** Aug 2015 - Aug 2016 (1 years)  
www.pinnera.com

Pinnera

Provided leadership and mentoring to a team of 7 developers.  
Designed and developed a real time messaging tool that is used in B2B projects.  
Managed complete development lifecycle of several small-scaled projects.

- SignalR
- LESS
- ASP.NET
- MVC
- Redis
- MsSQL
- Azure

**2012** ● **Software Developer** Jul 2012 - Jul 2015 (3 years)  
www.pinnera.com

Pinnera

Wrote a data mining library  
Implemented ANN, Genetic Alg., Decision Tree L. and several Clustering Alg.  
Designed and developed Pinnera Analyzer Windows Form Project.  
Rapidly prototyped new capabilities to confirm feasibility  
Developed a web based data mining tool for SMEs  
Designed and developed a web ERP tool for factories

- C#
- WinForms
- ASP.NET MVC
- ASP.NET Web API
- EF
- MsSQL
- ML

## ● Projects

**2018** ● **Modalite** Jan 2018 - Mar 2018 (2 months)  
www.modalite.net

Modalite.net is a search engine for all clothing brands in Turkey. It indexes ecommerce websites and categorize each clothing product. Currently there is 120.000 products from 20 brands.

- C#
- .NET Core
- EF Core

**2017** ● **DTSharp** Mar 2017 - Jul 2017 (5 months)  
github.com/cemmutlu/DTSharp

DTSharp is a .net decision tree learning library. It uses a specialized algorithm like ID3 and C4.5 to generate a decision tree. It has the capabilities of pruning (depth,data count,output probability) and using several split qualifiers (like Ginilmpurity,InformationGain,Entropy), discrete and continious features, lqueryble data sources and using Entity Framework as a data source (Transfers processing load to db).

**2017** ● **DriveX** Jan 2017 - Jun 2017 (5 months)  
microsoft.com/en-us/p/s/9nblggh40m9k

DriveX is a simple and challenging drift & park game with its highly addictive gameplay and realistic car physics. I used Win2D for graphics and designed a custom engine for physics and collision detection.

- C#
- UWP
- MVVM
- Win2D

**2016** ● **BookCloud UWA** Sep 2016 - Nov 2016 (2 months)  
microsoft.com/en-us/p/s/9nblggh5279g

BookCloud is an universal windows app that provides a simple way to catalogue the books you owned or you want to read later.

- C#
- UWP
- MVVM
- ASP.NET Web API

- 2015 ● **IPackLadder** Sep 2015 - Mar 2016 (6 months)  
<http://www.cemmutlu.com/file/ladder.pdf>

IPackLadder is an integrated development environment (IDE) developed for UESTCO as a freelance project. PackLadder has drag & drop ability to design ladder logic for IPACK hardware (<http://www.ipack.com.tr>).
- 2014 ● **Graduation Project** Sep 2014 - Jun 2015 (9 months)  
[cemmutlu.com/api/file/pattern\\_classification.pdf](http://cemmutlu.com/api/file/pattern_classification.pdf)

In my graduation project of my bachelor degree in Electronics Engineering in Istanbul Technical University, i've focused on Pattern Classification using Decision tree learning and SOM Networks. To classify different patterns like Brodatz samples and ultrasound images, I used several features of image processing. I trained a decision tree and a SOM Network, then i compared their results to see if these features are suitable for this purpose or not. In conclusion, DT has a average success rate of 88% while SOM Network has %76.
- 2014 ● **WaveSharp** Jul 2014 - Aug 2014 (1 months)  
[github.com/cemmutlu/WaveSharp](https://github.com/cemmutlu/WaveSharp)

A .NET library for wave synthesis and filtering. It has several filters and effects that can be applied to generated waves. I used the notion of enumerators which allowed me to create demand-driven (lazy) execution of synthesis.
- 2013 ● **Clocked** Apr 2013 - Apr 2014 (1 years)  
[youtu.be/rTX0DccksjA](https://youtu.be/rTX0DccksjA)

Clocked is a Tile based sandbox strategy game developed with XNA 4.0. In the game, players have to collect ores with their tank fleet and use it to improve their tanks. The goal of the game is reaching the center of map which is created randomly with procedural world generation algorithms.

  - C#
  - XNA 4.0
  - Socket

## ● Certificates

- 2017 ● **English Proficiency** Apr 2017  
 IELTS  
 Listening: 7.0, Reading: 8.5, Writing: 5.5, Speaking: 6.0
- 2016 ● **MPN Competency: Application Dev. for Technical** Sep 2016  
 Microsoft Partner University  
 Microsoft Azure, Microsoft SQL Server 2012, Microsoft Visual Studio 2012