

# Tolga Kurt, Software Developer

Wide-spectrum software developer with 7+ years of professional experience designing systems, developing robust code, laying out concise and consistent user interfaces. Evaluates problems carefully and favors simple solutions trying to avoid redundant complexity. Willing to undertake tough problems, focused on the goals, committed team member, modest communicator, open to innovative ideas. Seeking a challenging position in an agile environment.

Born in September 1985 | Married | Has driver's license | Can relocate or work remotely

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<http://tolgakurt.info> | <https://www.linkedin.com/pub/tolga-kurt/64/312/b03> | <https://github.com/tolgakurt>

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## EXPERIENCE

### LARSA, Inc., Software Developer

Jan 2016 — ...

<http://larsa4d.com>

LARSA, Inc. develops advanced software for the analysis and design of bridges and structures based on the finite element method. The flagship product, LARSA 4D BRIDGE Series, is recognized as the premier software for bridge engineers with the innovative tools necessary to support the life of a bridge project from design to construction.

- Developed the next generation of structural modeling tool using C++, C#, and .NET framework.
- Developed a report generation tool using C# and JavaScript that validates the generated structural model against the technical specifications.

### METU, Civil Eng. Dept., Research Assistant & Instructor

Oct 2014 — July 2017

<http://ce.metu.edu.tr>

Instructor of Engineering Drawing classes offered by the Department of Civil Engineering. Also conducted PhD studies in the area of structural mechanics and informatics.

- Implemented a cloud based structural analysis workflow in which WebGL is utilized in the client side and a NodeJS based analysis management platform in the server side.
- Developed a department management system that automatized most of the administrative work such as arranging room and exam reservations, allocating IPs, maintaining FTP accounts of the department members, tracking personnel activity, etc. The system was developed using essentially AngularJS on frontend and NodeJS on backend.

### MobileM İnteraktif Hizmetler A. Ş., Co-founder

June 2013 — Oct 2014

<http://playnex.com>

Full-stack entrepreneur: design, implementation, marketing, and management of Playnex mobile application.

- Developed a mobile application for Android and iOS.
- Developed a node-webkit based music player for Windows and MacOS.
- Developed RESTful HTTP and socket servers.
- Maintained the website, payment systems, usage analytics tools, etc.

### METU, Civil Eng. Dept., Research Assistant

Feb 2011 — July 2013

<http://ce.metu.edu.tr>

Responsible for the maintenance and development of IT services as well as conducting research on Finite Element Analysis.

- Implemented several algorithms for visualization of pre & post processing data and for mesh generation of finite element solids.
- Coded a graphical user interface using C++, Qt, VTK and GMSH for a full featured finite element analysis application called Panthalassa.
- Teaching assistant in some programming related courses.

**SKILLS**

**Programming (Skilled):** JavaScript, C++11/14, C# .NET, Python, PHP, FORTRAN, MySQL  
**Mobile & Web (Skilled):** HTML/CSS, AngularJS, React, NodeJS, Trigger.io, Apache Cordova  
**IOT Platforms (Intermediate):** Arduino, Esp8266, Raspberry Pi, C, EAGLE  
**Game Development (Intermediate):** Unity  
**Artificial Intelligence (Beginner):** Search Algorithms, Neural Networks

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**EDUCATION**

**METU** Sep 2014 — ...  
PhD - Building Information Modeling, CGPA: 3.71  
CS Related Courses: Artificial Intelligence, Machine Learning

**METU** Feb 2011 — June 2014  
Master - Structural Engineering, CGPA: 3.57  
CS Related Courses: Advanced Graphics and User Interfaces, Software Design Patterns

**METU** Sep 2003 — Feb 2011  
Bachelor - Civil Engineering, CGPA: 3.12

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**AWARDS**

**Best Assistant, METU, Civil Eng. Dept.** Nov 2015  
Awarded for distinguished work and effort in administrative services.

**Entrepreneurial Seed Funding, TÜBİTAK** Feb 2013  
Funded within the scope of "1512 Girişimcilik Aşamalı Destek Programı" with the project titled "İzogeometrik Analiz Yazılımı Geliştirilmesi".

**Honor Student, METU** Jan 2011  
Graduated as an Honor Student. Also enlisted twice in High Honor Roll previously.

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**PUBLICATIONS**

**A Cloud Based Workflow for a Finite Element Analysis Preprocessor, Civil-Comp Press**  
<http://www.ctresources.info/ccp/paper.html?id=8534> Mar 2015  
This paper presents a cloud based workflow and a software implementation that has a web-based GUI and a modular backend server which consists of an interface and many worker applications that are distributed over a network of computers or virtual machines.

**Application of Artificial Neural Networks on Building Energy Estimation, ICENTE'17**  
<https://www.researchgate.net/...> Dec 2017  
In this study, an Artificial Neural Network (ANN) is developed to estimate the energy performance of the buildings efficiently. The ANN is based on different network topologies, activation functions and learning rate combinations to provide more accurate results. It proposes the right parameter combination for ANN to generate competitive results with the ones from the previous studies.

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**LANGUAGES** Turkish (*Native*) , English (*Proficient*)

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**INTERESTS** Music [*Bass guitar, Digital music production*] , Visual arts [*Photography, Cinema*] , Machining [*Lathes and milling systems, CNC programming*]

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**REFERENCES**

**Faruk Çelik:** Senior Developer Support Escalation Engineer at Microsoft, İstanbul  
**Erman Akbay:** Senior Software Development Engineer at Microsoft, Seattle  
**Cumhur Onat:** Serial Entrepreneur. CEO at Mobilecraft & Sinerji İnteraktif, İstanbul