

Tolga Kurt, Senior Software Engineer

Wide-spectrum software developer with 8+ 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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EXPERIENCE

LARSA, Inc., Senior Software Engineer

Jan 2016 — ...

<http://larsa4d.com>

LARSA is a New York based company that develops advanced software for the analysis and design of bridges and structures based on the finite element method. Its flagship product 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.

- o Developing the next generation of simulation tools using C++11/14, C#, and .NET framework.
- o Developing report generation tools using C# and JavaScript that validates the simulation models against the technical specifications.
- o Installed and maintaining the CI/CD processes in the cloud using AppVeyor.

Middle East Technical University, Research Assistant & Instructor

Oct 2014 — July 2017

Instructor of Engineering Drawing classes offered by the Department of Civil Engineering. Also conducted studies in the area of information modeling.

- o Implemented a cloud based structural analysis workflow in which WebGL is utilized on the client side and a Node.js based analysis management platform on the server side.
- o Developed a department management system that automatized most of the administrative work such as arranging rooms 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 Node.js on backend.

MobileM Interactive Services, Co-founder

June 2013 — Oct 2014

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

- o Developed a hybrid mobile application for Android and iOS.
- o Developed a node-webkit (now called NW.js) based music player for Windows and MacOS.
- o Developed RESTful HTTP and socket servers using Node.js and Express.
- o Maintained the website, payment systems, usage analytics tools, etc.

Middle East Technical University, Research Assistant

Feb 2011 — July 2013

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

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

SKILLS	<p>Programming (Skilled): JavaScript ES5/ES6, C++11/14, C#.NET, MySQL</p> <p>Web & Mobile (Skilled): HTML5/CSS3, Node.js, AngularJS, Trigger.io, Apache Cordova</p> <p>IOT (Intermediate): Esp8266, Arduino, Raspberry Pi, C, EAGLE</p> <p>Cloud Services (Intermediate): Azure IoT Hub, Azure Functions, Azure Storage, AppVeyor</p> <p>Artificial Intelligence (Beginner): Search Algorithms, Neural Networks</p> <p>Honorable Mentions (Varying): React, Vue.js, Python, Qt, Unity, PHP, PowerShell</p>
EDUCATION	<p>Middle East Technical University Feb 2011 — June 2014 Master - Structural Engineering, CGPA: 3.57 CS Related Courses: Advanced Graphics and User Interfaces, Software Design Patterns, Artificial Intelligence, Machine Learning</p> <p>Middle East Technical University Sep 2003 — Feb 2011 Bachelor - Civil Engineering, CGPA: 3.12</p>
AWARDS	<p>Best Assistant, Middle East Technical University, Civil Eng. Dept. Nov 2015 Awarded for distinguished work and effort in administrative services.</p> <p>Entrepreneurial Seed Funding, TÜBİTAK Feb 2013 Funded within the scope of "1512 Entrepreneurship Support Programme" with the project titled "Development of an Isogeometric Analysis Software".</p> <p>Honor Student, Middle East Technical University Jan 2011 Graduated as an Honor Student. Also enlisted twice in High Honor Roll previously.</p>
PUBLICATIONS	<p>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.</p> <p>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.</p>
LANGUAGES	Turkish (<i>Native</i>) , English (<i>Proficient</i>)
INTERESTS	Maker [<i>Lathes and milling systems, CNC machining, Circuit design, DIY gadgets</i>] , Music [<i>Bass guitar, Digital music production</i>] , Visual arts [<i>Photography, Cinema</i>]