

# Matin (Mateen) Lotfaliei

CONTACT INFORMATION	<a href="mailto:mloftali@sfu.ca">mloftali@sfu.ca</a> <a href="mailto:matinloftali@gmail.com">matinloftali@gmail.com</a> 103 - 4575 Grange Street, Burnaby, BC, Canada - V5H 1P8	+1 (604) 785 8161 +98 912 327 1438
EDUCATION	<b>Simon Fraser University</b> , Master of Science, Interactive Arts and Technology Supervisor: <a href="#">Dr. Bernhard Riecke</a>  <b>Islamic Azad University - South Tehran Branch</b> ( <a href="#">Link</a> ), Bachelor of Engineering, Computer Software Engineering, GPA: 16.73/20 Thesis: Improving Fingertip Detection Accuracy using Genetic Programming – point: 20/20	2017 2019 (withdra w)  2009 2014
PUBLICATION	Hashemian A. M., <b>Lotfaliei M.</b> , Riecke B., Kruijff E. (2019) Fly in a Spaceship: Comparison of flying interfaces in a gamified virtual reality experience, PNAS (Probably)  Hashemian A. M., <b>Lotfaliei M.</b> , Rahimian A. (2013) Fingertip direct manipulation 3D-HCI using 3D glass and Microsoft Kinect 360 ( <a href="#">Link</a> )	Data is analyzed, the first complete draft is written.  Never published
CERTIFICATE	<b>TCPS 2: CORE</b> Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics  <b>IELTS Academic</b> Overall Mark: 7	2017  2017
WORK EXPERIENCE	<b>Teaching Assistant</b> , <a href="#">Simon Fraser University (SFU)</a> IAT167 with instructors <a href="#">Eric Yang</a> and <a href="#">Dr. Marek Hatala</a>  <b>Software Development Engineer</b> , <a href="#">Shooka</a> January 2014 – October 2015 (1 year 10 months) October 2016 – August 2017 (11 months)  <b>Teaching Assistant</b> , <a href="#">Islamic Azad University (IAU)</a> Fundamental & Advanced Programming with instructor <a href="#">Abraham M. Hashemian</a> Algorithms & Artificial Intelligence with instructor <a href="#">Mohammad Mahdi Mohammadi</a>	2018 Present  2014 2017  2010 2015
HONOURS & AWARDS	<b>Graduate VISA Bursary Program</b>  <b>IEEEExtreme Programming Competition 10.0</b> Ranked 1045 out of 2500 worldwide teams.  <b>Letter of Appreciation</b> from the <a href="#">Association of Computer Engineering Islamic Azad University South Tehran Branch</a> Selected as the most active programmer of the Association Board.  <b>RoboCup Soccer Simulation Championship</b> – Silver Medalist ( <a href="#">Video</a> ) <a href="#">Mazandaran University of Science &amp; Technology</a>	2018  2016  2013  2011
VOLUNTEER EXPERIENCE	<b>Association Inspector</b> , <a href="#">Association of Computer Engineering Islamic Azad University South Tehran Branch (ACE-TIU)</a>  <b>Programming Workgroup Member</b> , <a href="#">Association of Computer Engineering Islamic Azad University South Tehran Branch (ACE-TIU)</a> Having Annual Speech, Implementation of Automation Application in C#, and Lecture a workshop about Graphics Programming in C#	2015 2017  2012 2015

SKILLS	<b>Programming Languages:</b> Expert in: C#, C++, Java, PHP Intermediate in: HTML/CSS, JavaScript, Delphi	
	<b>Algorithms:</b> Expert in: Genetic Algorithm, MinMax, Image Processing Intermediate in: Artificial Neural Networks, Fuzzy Logic	
	<b>Software &amp; Tools:</b> Expert in: Git, SPSS Statistics, JMP Intermediate in: Photoshop, 3D Max	
	<b>Development Environments:</b> Expert in: Visual Studio, Qt Creator, IntelliJ IDEA, Processing, Unity Intermediate in: Android Studio, MonoDevelop, Vizard	
VR PROJECTS	<b>Follow the Bird (<a href="#">Video of the task</a>)</b> A within-subject experimental study has been done on human participants in a gamified avatar-following VR task. The descriptive and inferential statistical analysis was reported with graphs (using JMP) and 3-way repeated measures ANOVA test (using SPSS).	2018
	<b>Modern Park VR (<a href="#">Video</a>)</b> Head Directed Locomotion Interface in Unity Game Engine and Google Cardboard SDK	2017
	<b>MatinChess VR (<a href="#">Video</a>)</b> A chess game in a Virtual Reality environment. Game Engine: Unity, Artificial Intelligence: C++, Virtual Reality: Google Cardboard SDK	2016
	<b>VRremote</b> A remote joystick, mouse, keyboard that turns smartphones into an input device. Android application, Java programming language.	2016
AR PROJECTS	<b>Holographic Keyboard (<a href="#">Video</a>)</b> Programmer of the team	2014
	<b>Holographic Video Conference (<a href="#">Video</a>)</b> Connecting two Microsoft Kinect 360 via LAN, implemented using GraphicBox Library. Programmer of the team	2014
	<b>Improving fingertip tracking accuracy using Genetic Programming (<a href="#">Video</a>)</b> Presented among IAU–South Branch faculty members, followed by <a href="#">Fingertip Tracking Paper</a> .	2013
	<b>Graphic Box Library (<a href="#">Link</a>) (<a href="#">Demo</a>)</b> 3D user-interface patent combining anaglyph and Kinect technologies. The SDK Library project is in test and final implementation phase. Conceptualist, Designer & Programmer of the team	2011
ENGINEERED PROJECTS	<b>TechJob Telegram bot (<a href="#">Link</a>)</b> A Telegram bot for Arjang Institute of Higher Education, which is used for QA competition handling and channel management. C# and PHP programming languages.	2016
	<b>ACE Giant Project (<a href="#">Link</a>)</b> A 3-tier architecture project for <a href="#">Association of Computer Engineering (ACE-TIU)</a> . 1 <sup>st</sup> tier: MySQL database on Ubuntu 14.04 operating system. 2 <sup>nd</sup> tier: ASP.NET <a href="#">Web-Service</a> using C# and WSDL on Mono. 3 <sup>rd</sup> tier: <a href="#">ACE Automation Desktop Application</a> and <a href="#">ACE Telegram Bot Service</a> written in C# programming language	2015
	<b>Shooka Desktop Client (<a href="#">Link</a>)</b> Video conferencing client application, which uses Vidyo native library, written in C# programming language. Senior Software Developer of the team	2014

OTHER  
PROJECTS

<b>Circular Treadmill* API</b> for Unity Game Engine	2019
For the Circular Treadmill device located at the iSpace lab. a C# middleware application is implemented that receives TCP messages from a Unity script and then calls related COM commands to the device.	
<b>BioSignalsPlux API</b> for Unity Game Engine	2018
For the BioSignalsPlux toolkit at the iSpace lab, a native C library is implemented that enables Unity scripts to invoke the official C++ library of the product.	
<b>Fire Simulation</b>	2016
A pixel manipulated fire effect that has been tested with different technologies.	
April 2016, Windows Presentation Foundation (WPF) ( <a href="#">Source</a> )	
April 2016, Java programming language in Android Studio ( <a href="#">APK Link</a> )	
March 2016, Qt/C++ programming language ( <a href="#">Source</a> )	
March 2011, C# programming language ( <a href="#">Photo</a> )	
<b>Pente</b> ( <a href="#">APK Link</a> )	2015
Pente board game using MinMax artificial intelligence algorithm written in C++/Qt programming language.	
Installable on <a href="#">Android</a> , <a href="#">Windows</a> , and <a href="#">Linux</a> operating systems.	
<b>MatinChess</b> ( <a href="#">APK Link</a> )	2015
Chess game using MinMax artificial intelligence algorithm written in C++/Qt programming language.	
Installable on <a href="#">Android</a> , <a href="#">Windows</a> , and <a href="#">Linux</a> operating systems.	
<b>Cipher, Decipher, Hash and Random Generator</b> ( <a href="#">Source</a> )	2014
Playfair, Hill cipher, RSA, Vigenere, DES encryption algorithms,	
Simple Hash using XOR & Rotated XOR algorithm & Blum Blum Shub (BBS) algorithm.	
Implemented in C++ / Qt	
<b>Pascal Analyzer</b> ( <a href="#">Source</a> )	2012
Lexical & Syntax Analyzers including error recovery written in C# programming language	
<b>Mathlab</b> ( <a href="#">Photo</a> ) ( <a href="#">Download</a> )	2010
Draws 2 dimensional polar and Cartesian equations by implementing a mini-compiler written in C# programming language	
<b>Windows Simulation</b>	2009
A Microsoft's Windows Environment Like application written in Turbo C++ programming language	
Senior Programmer of the team	
<b>Leitner Box</b> ( <a href="#">Photo</a> )	2008
Helps to memorize QAs in long period written in Delphi programming language and Borland Database Engine in Persian	

All information, which is not linked or is not clear, can be officially documented or proved.