

# Marios Bikos

SOFTWARE ENGINEER INTERESTED IN AUGMENTED REALITY, VIRTUAL REALITY & GAME DEVELOPMENT

London - United Kingdom

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## Education

### University College London

London, UK

MSC IN COMPUTER GRAPHICS, VISION & IMAGING

Sep. 2015 - Sep. 2016

- **GPA:** 75.4% (Distinction) | **Related Courses:** Virtual Environments, Computer Graphics, Image Processing, 3D Geometry, Machine Vision
- **MSc Thesis:** "VR for the Study of Moral Dilemmas involving Driverless Cars" (Grade: 86%). Advisor: Prof. Mel Slater

### University of Patras

Patras, GR

INTEGRATED MASTER OF ENGINEERING - ELECTRICAL AND COMPUTER ENGINEERING (300 ECTS)

Sep. 2009 - Jul. 2015

- **GPA:** 7.83/10 (5th/60 students) | **Related Courses:** Computational Geometry, Human-Machine Interaction, Object Oriented Technology
- **Thesis:** "Dynamic Simulation of Virtual Objects for AR Applications. Development of an AR Chess" (Grade: 10/10). Advisor: K. Moustakas

## Professional Experience

### Framestore

London, UK

VR DEVELOPER

May 2018 - Present

- Worked directly with creatives to implement VR Scouting Tools for Framestore's Virtual Production Platform, leveraging Unreal Engine.
- Programmed the Driver Animation System and implemented spline manipulation tools for the VW Hyper Reality Test Drive, a 4D VR simulation.
- Led development for the accompanying Magic Leap AR Experience to Fantastic Beasts: The Crimes of Grindelwald.

### Electric Square / Studio Gobo

Brighton, UK

PROGRAMMER

Sep. 2016 - May 2018

- Experience working in all phases of game development, from feature design and implementation to bug-fixing for Forza Street.
- Implemented the main UI screen-flow system in Unreal Engine from scratch, allowing content authors to easily manipulate menus.
- Built a Unity Editor tool that simulates a production control room to facilitate the debugging of the complex camera system, using C#.

### FAR Research Group - Technical University of Munich

Munich, DE

RESEARCH INTERN

Mar. 2015 - Jun. 2015

- Developed a pinch gesture detection algorithm, employing thumb and forefinger relative position for 3D virtual object manipulation.
- Implemented an interactive AR Chess Game, with depth map occlusion handling, enabling users to seamlessly manipulate virtual chess pieces using their bare hands and play against a chess AI engine, using C++, OpenCV, OpenGL, ARUco, Intel RealSense SDK.

## Volunteer Experience

### IEEE Computer Society Student Chapter-University of Patras

Patras, GR

CHAIR & FOUNDER

Nov. 2011 - Sep. 2012

- Led a team of 23 students to organise the **1st Games Expo in Greece**, aiming to network Greek gaming companies and students, winning the **Gold Darrel Chong Student Activity Award**, given annually by IEEE to acknowledge exemplary student activities around the globe.
- Recipient of the **Richard E. Merwin Student Scholarship 2014**, given by IEEE Computer Society to recognize and reward active student leaders.

## Project Experience

2016	<b>VR for Moral Dilemmas:</b> Developed a VR simulation that utilises virtual embodiment through body tracking to immerse users in an environment, where they can relive a moral dilemma as the passengers of a driverless car.	Oculus Rift, Unity, Optitrack, C#
2016	<b>SlalomPenguin-VR:</b> Reverse-engineered an intuitive game interface for locomotion in VR environments and built an alpine-skiing immersive environment simulation for a C.A.V.E to demonstrate its effectiveness.	Unity, C#
2016	<b>Isotropic Remeshing of Surfaces:</b> Implemented isotropic remeshing algorithms that improve the quality of a given 3D mesh in terms of vertex sampling, regularity and triangle quality.	C++, OpenGL, CGAL
2014	<b>Light Source Estimation for AR Applications:</b> Utilised and programmed algorithms to estimate the position of a point light source in a scene using Kinect.	C++, OpenGL, PCL

## Achievements

2017	<b>Grand Prize Winner</b> among 112 Unity projects in the Polycount-Unity Connect Contest.	Worldwide(Online)
2014	<b>6th/1625 teams (Top 0.3%)</b> in the European Best Engineering Competition on analytical skills.	Riga, Latvia
2014	<b>People's Choice Award/15 Greek games</b> that participated in the Global Game Jam 2014.	Athens & Patras, GR
2012	<b>124th/1900 teams (Top 6%)</b> in the IEEEExtreme 6.0 24hr-Programming Competition.	Worldwide(Online)