

# SERHAN ULKUMEN ARDILA

serhanulkumen@gmail.com | (949) 735-0044 | 207 Marsala, Newport Beach CA, 92660 | [www.serhan.io](http://www.serhan.io)

---

## SKILLS

- **Expert:** C#, Unity3D, C++, Unreal5, Git, JavaScript, Maya, ARKit, HTML. **Proficient:** Java, Python, Perforce, Photoshop, AfterEffects
- **Languages:** Native in Spanish, English, Turkish, French. **Familiar with:** PHP, React Native, SQL, Nuke, Adobe XD, Illustrator

## WORK EXPERIENCE

### Madison Square Garden Entertainment Corp. (Burbank, CA).

(May 2022 - Present)

*Lead Software Engineer | Real-Time*

- Architected, developed and maintained MSG Sphere Content Development Kit codebase for productions with Unreal Engine 5.
- Created technical specifications documents, managed quality assurance and testing for real-time software products.
- Collaborated with design and product management to scope engineering roadmaps based on business requirements.

### Encore Music Technologies (Culver City, CA)

(October 2020 - May 2022)

*Senior Augmented Reality Developer*

- Designed and implemented an AR effects system in Unity for live music video productions. Lead and contributed to major parts of the codebase including object system, post processing and screen space shader systems with use of semantic segmentation.
- Contributed to the development of an iOS - Unity bridge for native Swift to C# communication, and an AMS for asset bundles.
- Assisted in the development of technical AR-product roadmap and in the management of internal and external dev teams.

### DreamWorks Animation (Glendale, CA)

(August 2019 - October 2020)

*Game Engine Developer*

- Unreal Engine developer on Kung-Fu Panda's Po Live Experience for the Universal Studios Beijing Theme Park. Contributed to prop system development, spatialization of in-game and mic audio, weekly Q&A testing, bug fixes and additional features.
- Prepared Trolls feature assets, including 3D characters and props, for use in 8th Wall's web based AR engine and FB's Spark AR.
- Researched and prototyped workflow concepts for virtual production using depth sensors, body tracking software and AI tools.

### Technicolor - Experience Center (Culver City, CA)

(June 2018 - December 2018)

*Game Developer*

- Programmed a multiplayer, networked virtual-production tool in augmented reality for leading film studios with MPC Genesis..
- Built an AR audio visualizer app for LiveNation's Voodoo Music + Arts Experience - debuted in New Orleans, LA.
- Unity developer on VR title "[Awavena](#)" featured at the Venice International film festival and awarded at Filmgate Interactive.
- Designed and developed cross-platform xR applications for mobile devices (iOS & Android) and headsets.

### BackCode (Los Angeles, CA)

(October 2015 - July 2016)

*Game Development Intern*

- Web based educational and cultural training game for Northrop Grumman, Alelo and D.o.D. built entirely in JavaScript.
- Developed a video streaming service and educational games for Samsung GearVR platform with C# and Unity3D.

### The Heavy Projects (Los Angeles, CA)

(May 2014 - October 2015)

*Augmented Reality Developer*

- Worked on world's largest AR mural for SxSW 2014, sponsored by Qualcomm. Built with Vuforia and Unity3D
- Developed mobile AR applications (iOS, Android) for industry leading clients such as the IEEE and Qualcomm.

## EDUCATION

### University of Southern California

(May 2018)

#### Bachelor of Arts, Neuroscience

- **Minors:** 3D Computer Graphics and Modeling, Innovation: Digital Entrepreneurship
- **Relevant Courses:** C++ Programming, Design for User Experience, Java Programming, Neural Networks for Social and Cognitive Processes, Neurobiology, 3D Design and Prototyping, 3D Modeling Animation and Special Effects, 3D Compositing and Visual Effects
- **Publications:** "Quantifying and attenuating pathologic tremor in virtual reality" - Quantitative Biology: [arXiv.org](https://arxiv.org/abs/1801.00000) (2018)

#### Udacity Nanodegree, ARKit with Unity

(January 2018)

## LEADERSHIP

- Mentor at CHLA's first Gamifying Pediatrics Hackathon hosted by BCG DV and MIT Hacking Medicine. (April 2019)
- Research Fellow, USC Michelson Center for Convergent Bioscience - CSI Cancer. The Kuhn Laboratory. (April 2017)
- Founding Member & VP of Development, VRSC. USC's premiere immersive technology student organization. (Spring 2014)

## SELECTED AWARDS

- Magic Leap Independent Creators Program - Magic Leap One Headset Recipient (2019)
- Hack Music LA, Finalist at Walt Disney Concert Hall (2017)
- Hack for Health USC, 2nd Place - Won \$3,000 (2017)
- USC Body Computing Conference, Hackathon Winner - Won \$10,000 (2015)