

# Omer Shapira - Digital Artist

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Digital Artist & Team Leader, working with Virtual Reality, Physical and Digital Interfaces, Real-time Graphics and Machine Learning. Experienced in leading teams of Artists & Engineers through prototyping and production.

## Experience

2016 - Now **NVIDIA Senior Virtual Reality Technical Artist.**

Expert in Virtual Reality art & design, leading content projects & interaction methods.

- ▾ Art lead on original Virtual Reality content.
- ▾ Leading an international team for developing new interactions.
- ▾ Prototyping new interaction devices and artist tools.
- ▾ Working on demos with AAA studios on cutting-entertainment technologies

2015 - 2016 **FAKE LOVE [A NEW YORK TIMES COMPANY] Director of Virtual Reality.**

Led projects with 8-30 people. Development Lead and Team Builder for Virtual Reality and Game Engines.

- ▾ **Google Play Music 360: Music for Everything You Do** [Google / Big Spaceship] - Immersive experience for Google's Music platform.
- ▾ **Carol: "Dearest..."** [Weinstein Company / New York Times] - Promotional Immersive Experience for The Weinstein Company. Appeared in the NYT VR app.
- ▾ **Forma** - Multiplayer networked Virtual Reality Experience using Motion Captured dancers choreographed by Jonah Bokaer.

Notable Achievements:

- ▾ Built the VR dept & facilitated a collaboration with the New York Times leading to an acquisition.
- ▾ Trained artists and programmers to work for Virtual Reality
- ▾ Created and led Fake Love's VR team, training programmers, prototypers and designers.
- ▾ Built Fake Love's Game Engine development pipeline, including a fork of Unreal Engine for Fake Love's hardware integration.
- ▾ Built an automatic, distributed pipeline for assembling & stitching volumetric and 360°video.

2015 **GIANT** [[link](#)], *Virtual Reality Technical Director.*

Led Visual Effects development for the VR Experience and developed a renderer for computed stereoscopic video inside Unreal Engine. Sponsored by Oculus, Nvidia and Epic Games. Featured at Sundance Festival and Cannes.

2014 - 2015 **FRAMESTORE VR STUDIO**, *Virtual Reality Developer*

Worked on virtual reality applications with film quality. Selected Projects Led:

- ▽ **Merrell Trailscape** [Nike / Hill Holliday], world's first commercial room-scale VR experience: integrated redirected walking, 360fps motion tracking, chaperone bounds, and room-scale haptics.
- ▽ **Tony Stark's Lab** [Disney / Samsung / 72&Sunny], A VR game that shipped with Samsung's Gear VR headset.

Notable Achievements:

- ▽ Devised rules of interaction for room-scale experiences
- ▽ Devised design guidelines for heads-up displays
- ▽ Created artist guidelines and tools for converting film assets (motion graphics and meshes) into game assets
- ▽ Breakthroughs in real-time fur rendering
- ▽ Built a show control system syncing UE4, a motion capture space, wind machines and haptic transducers.
- ▽ Built a Python FFI for Unreal Engine, .NET Dynamic language integration for Unity.
- ▽ Unsupervised scene inference algorithms using OpenCV.

2014 - Now **HORIZON**, *Art Lead, Engine Lead*

A 4-Dimensional VR game developed as a resident at NEWINC. Release planned 2017.

- ▽ Building a hybrid CPU-GPU mesh processing engine.
- ▽ Design, Screenwriting and Creative Direction of the game.

2013 **CLOUDS** [[link](#)], *Effects and Animations Developer*.

A realtime-generated interactive documentary experience written in C++. Won the Tribeca Film Festival *Best Transmedia* Category.

2013 **MICROSOFT RESEARCH, FUSE LABS**, *Student Researcher*.

Worked on **Roommate**, an AI-driven art installation for regulating human behavior with IoT devices in coworking spaces. Built controllers for motorized screens and sound systems for dynamically controlling spaces.

2013 **MIDNIGHT COMMERCIAL**, *Technologist*

Wrote artist tools for laser projectors and for 3D printing from sound data.

2010 - 2012 **CHANNEL 10** [Israel], *Presenter*.

Emerging Technologies columnist in Israel's most popular late-night news show.

2006 - 2010 **CHANNEL 10** [Israel], *Director, Editor*.

Worked on promos, magazine spots and news.

2007 - 2013 **FREELANCE VFX Artist**.

Compositor & Software Developer.

## **Military Service**

2003 - 2006 **IDF**, Film Production Dept. *Director, Head of Post Production*.

Creative management of up to 8 people, design and management of a Post-Production pipeline.

## Education

2012 - 2014 **NEW YORK UNIVERSITY**, Interactive Telecommunicaitons Program, *MPS*

- ▽ HCI Researcher at the NYU Media Research Lab. Supervisor: Prof. Ken Perlin
- ▽ Created Virutal Reality experiences, interactive museum installations, computer graphics tools and conceptual digital art.

2008 - 2012 **TEL AVIV UNIVERSITY**, Mathematics / Linguistics, *BSc [Summa Cum Laude]*

- ▽ **Mathematics.** Focus: Computer Science, Group, Number & Game Theory. Final: Spectral Methods for Data Analysis.
- ▽ **Linguistics:** Focus: Machine Learning, Natural Language Processing. Final: Un-supervised Syntax Learning.

## Checklist

<i>Languages<sub>1</sub></i>	C++, C#, Java, JavaScript, Python, Racket
Graphics	Unreal Engine, Unity, OpenGL, openFrameworks, Cinder, Three.js, G/HLSL
<i>APIs</i>	Oculus SDK, Oculus Mobile, WebVR, OpenCV, NLTK, IPython, Tornado, Node, PIL, Raspberry Pi, Arduino, Android NDK
<i>Tools</i>	Nuke, Media Composer, After Effects, Cinema 4D, Rhino, Grasshopper, Git, SVN, Perforce, Jenkins.
<i>Languages<sub>2</sub></i>	English, Hebrew, German (basic)

## Honors & Awards

- 2015 **Art Director's Club Award**, for *Merrell Trailscape*
- 2015 **Clio Sports Award**, for *Merrell Trailscape*
- 2015 **Webby Honoree, Virtual Reality** for *Merrell Trailscape*
- 2015 **Hatch Innovation Award** [[link](#)], for *Merrell Trailscape*
- 2014 **Best Transmedia, Tribeca International Film Festival**, for participation in [Clouds](#).
- 2013 **Best System Design, Microsoft Research Faculty Summit**, for designing [Mine](#)
- 2009 **Best Special Effects, Houston Comedy Film Festival**, as VFX supervisor in [Israeli Intelligence](#).

## Shows, Events & Residencies

- 2016 **Virtual Reality Developers Conference** [[link](#)], *Park Central Hotel*, San Francisco - Lecture: Thinking with Your Body: Fast Iteration For Mixed Reality
- 2016 **Art && Code** [[link](#)], *Carnegie Mellon University*, Pittsburgh, PA. Workshop: There's More to it than Shoving Photons in Your Eyes

- 2016 **Oculus Launch Pad**, *Facebook HQ*, Menlo Park, CA. Workshop: Design for the Senses in VR.
- 2016 **Killscreen VERSIONS Conference** [[link](#)], *The New Museum*, New York, NY, Workshop: The Painful Introduction to Virtual Reality.
- 2016 **Cannes Film Festival**, France, showing **Giant**.
- 2016 **Game Developers Conference**, San Francisco, CA showing **Giant**.
- 2016 **Sundance Film Festival: New Frontier** [[link](#)], Park City, UT as a participant in **Giant**.
- 2015 **NEW INC** [[link](#)], *The New Museum*, New York, NY - resident (as *n-Dimensional*), developing **Horizon**.
- 2015 **Art Hack Day - Deluge** [[link](#)], *Pioneer Works*, Brooklyn, NY showing **#drowning**.
- 2014 **Eyeo Festival** [[link](#)], *Walker Art Center*, Minneapolis, MN as a participant in **Clouds**.
- 2014 **Sundance Film Festival: New Frontier** [[link](#)], Park City, UT as a participant in **Clouds**.
- 2014 **Tribeca International Film Festival** [[link](#)], New York, NY as a participant in **Clouds**.
- 2013 **PRISM BREAKUP** [[link](#)], *Eyebeam Art & Technology Center*, New York, NY showing **DDSOS**.
- 2013 **Microsoft Design Expo: Making Data Useful** [[link](#)], *Microsoft*, Redmond, WA showing **Mine**.
- 2013 **NYC Media Lab Future Interfaces** [[link](#)], *Razorfish HQ*, New York, NY showing *Power Plants*.

## Publications

- 2016 **Unreal Engine 4 Game Development Essentials** [[link](#)], Packt Publishing. Technical Reviewer.
- 2014 **The openFrameworks Book**. Wrote the Mathematics chapter for the official **openFrameworks book**.

## Press

- 2016 **Lights, Camera, Virtual Reality!**, *The New Yorker*
- 2016 **Imagining the Possible Futures of Virtual Reality**, *Hyperallergic*
- 2014 **This Horrible Speaker Plays Nothing Except U2**, *CityLab (the Atlantic)*.
- 2014 **Turn All Your Music Into U2 With This Speaker You Never Wanted**, *Animal*.
- 2014 **New Nightmarish Speakers Only Play U2, You Mindless Programmable Pawn**, *The Rooster*
- 2014 **Pro-Bono: de speaker die alleen maar U2 ten gehore brengt**, *Freshgadgets.nl*
- 2014 **Bono Speaker plays U2 only**, *Nerdcore.de*
- 2014 **Behold: The Speaker That Only Plays U2**, *MadeMan*
- 2014 **Le PRO BONO 1, Une Enceinte Pour Les Fans De U2**, *GenerationMp3*

- 2014 [4D Games, Liberation Technology, Animal.](#)
- 2014 [Don't Buy This Speaker, Unless You're Really Into U2,](#) Timeout Tel Aviv
- 2013 [Breaking up with PRISM is hard to do,](#) The Verge (As a member of PRISM Breakup)
- 2013 [5 Civic Projects Aim to Make Data Useful,](#) PBS
- 2013 ['Clouds': an interactive documentary shot on Kinect proves the future of video is not at CES,](#) The Verge (As member of CLOUDS)
- 2013 [CLOUDS Interactive Documentary – Exploring creativity through code,](#) Creative Applications (As member of CLOUDS)
- . [2012][CLOUDS, A DOCUMENTARY SHOT WITH KINECT, EXPLORED BEAUTY OF CODE,](#) WIRED (AS MEMBER OF CLOUDS)

#### **Press for Projects Made at Fake Love**

- 2015 [Google Cardboard's New York Times Experiment Just Hooked a Generation on VR,](#) Wired
- 2015 [NYT Mag Debuts 'Great Performers' Issue with Virtual Reality Film,](#) New York Times
- 2015 [A dazzling virtual reality rollout from New York Times,](#) Boston Globe
- 2015 [The New York Times' new VR project is for a movie studio,](#) Digiday
- 2015 [Promotion for Google Play Video From Big Spaceship and Fake Love Breaks New Ground,](#) Creativity Online

#### **Press for Projects Made at Framestore**

- 2015 [Outdoor-Apparel Brand Merrell Uses Virtual Reality to Refresh Brand,](#) Advertising Age
- 2015 [8 things you need to know before launching a virtual reality brand experience,](#) Venturebeat
- 2015 [Merrel's Trailscape,](#) Eyesin
- 2015 [First 'walk around' commercial VR experience ,](#) Adweek
- 2015 [How Brands Are Using Oculus Rift's 4-D,](#) Biz Bash
- 2015 [Merrell Bows Interactive Experience at Sundance and Slamdance,](#) Footwear News
- 2015 [Merrell, Oculus Rift Take Virtual Hike Through Sundance,](#) Media Post
- 2015 [Footwear Brand Invites Sundance Attendees to Virtual Reality Hike,](#) PSFK
- 2015 [Review Fix Exclusive Sundance Film Festival Coverage: Jamie Mandor Talks Merrell TrailScape,](#) Review Fix
- 2015 [Framestore and Merrell Partnet for Immersive 'Walk Around' VR Experience,](#) VR Focus