

# FEDERICO SALDARINI

Computer Scientist | Software Engineer



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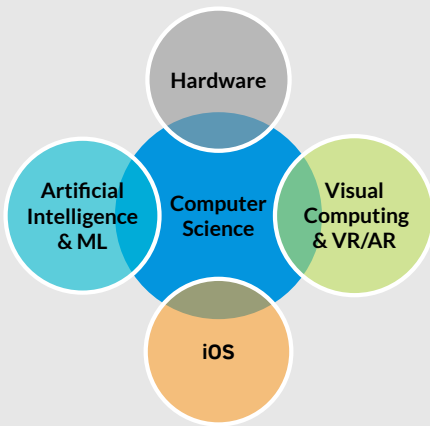
/in/federicosaldarini



saldavonschwartz

## Skills

### Areas



### Languages

Python • C++ • Obj-C • C# • Swift

## Projects

### NNKit

A Python framework for implementing dynamic neural networks.

### DQN

An implementation of Deep Q-Network used in solving reinforcement learning environments in OpenAI Gym.

### Digits

A neural network classifier trained in Python and deployed to iOS via Obj-C++ and OpenCV.

### GPUKit

AC++ framework for OpenGL rendering.

### VRTeleport

AC++ plugin for virtual reality teleportation in Unreal Engine.

## ABOUT

I am a computer scientist with interests in visual computing, artificial intelligence and interfacing with the physical world and I enjoy working on projects where these converge.

## EDUCATION

2011	B.S. Computer Science	Portland State University. Portland, OR.
2009	Music Synthesis	Berklee College of Music. Boston, MA.

## EXPERIENCE: VR, AR, AI, GRAPHICS AND HARDWARE

Present Freelance Software Engineer and Consultant

03/17	<b>Contract Software Engineer</b> ■■ OpenGL, C++ R&D of OpenGL ES voxel engine for Raspberry Pi, as an alternative to Minecraft Pi Edition.	Piper
02/17	<b>Contract Software Engineer</b> ■ Unreal Engine, Unity, HTC Vive R&D of a room-scale VR experience, including depth-capturing of live actors and environments.	RED Patterns
11/16	<b>Contract Software Engineer</b> ■ Unity, Oculus Rift, Google Cardboard Character rigging and optimization of assets and precomputed lighting according to capabilities of desktop vs mobile VR hardware.	Endless Riff
05/16	<b>Contract Software Engineer</b> ■ Unreal Engine, Unity, Samsung GearVR, Google Cardboard Prototyping of different VR + 360 film viewers and interactive environments for different mobile platforms.	Boon
02/16	<b>Contract Software Engineer</b> ■■ iOS, Bluetooth LE Implementing a BLE protocol and music engine for iOS devices to interact with a custom electronic guitar.	Magic Instruments
08/15	<b>Contract Software Engineer</b> ■■ iOS, C++, Vuforia Auditing and bug-fixing of C++ / Vuforia code in an iOS AR application.	Wiggle Planet
02/14	<b>Full-Time Software Engineer</b> ■■■■ iOS, C++, Unity, Bluetooth LE Implementing several features of Anki Drive for iOS. R&D on interfacing Unity with custom C++ AI-planner. The artifacts of this R&D became the basis for the company's Android release and their switch to Unity.	Anki

## OTHER IOS EXPERIENCE: FULL-TIME & CONTRACT | 2014-2017

Shyp • Shopular • Live Nation • Interview Cake • Basic Space • Learnist • Nextive

## PUBLICATIONS

11/10	<b>The Audio Programming Book</b> Waveshaping: from Csound to Cocoa. DVD: Ch. 34.	MIT Press
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