FEDERICO SALDARINI

Computer Scientist | Software Engineer

- 0xfede.io
- fede.saldarini@gmail.com
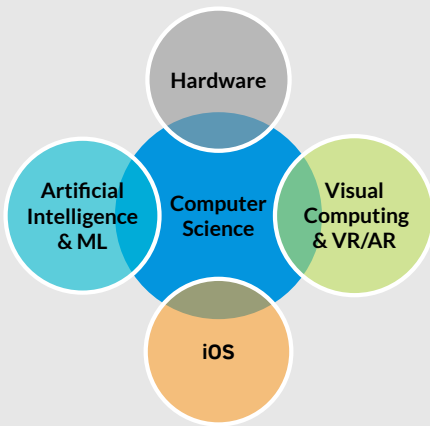- /in/federicosaldarini
- saldavonschwartz

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 ■
A C++ framework for OpenGL rendering.

VRTeleport ■
A C++ 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 Collge of Music. Boston, MA.

EXPERIENCE: VR, AR, AI, GRAPHICS AND HARDWARE

Present **Freelance Software Engineer and Consultant**

03/17 **Contract Software Engineer** ■■ *Piper*
OpenGL, C++
R&D of OpenGL ES voxel engine for Raspberry Pi, as an alternative to Minecraft Pi Edition.

02/17 **Contract Software Engineer** ■ *RED Patterns*
Unreal Engine, Unity, HTC Vive
R&D of a room-scale VR experience, including depth-capturing of live actors and environments.

11/16 **Contract Software Engineer** ■ *Endless Riff*
Unity, Oculus Riff, Google Cardboard
Character rigging and optimization of assets and precomputed lighting according to capabilities of desktop vs mobile VR hardware.

05/16 **Contract Software Engineer** ■ *Boon*
Unreal Engine, Unity, Samsung GearVR, Google Cardboard
Prototyping of different VR + 360 film viewers and interactive environments for different mobile platforms.

02/16 **Contract Software Engineer** ■■ *Magic Instruments*
iOS, Bluetooth LE
Implementating a BLE protocol and music engine for iOS devices to interact with a custom electronic guitar.

08/15 **Contract Software Engineer** ■■ *Wiggle Planet*
iOS, C++, Vuforia
Auditing and bug-fixing of C++ / Vuforia code in an iOS AR application.

02/14 **Full-Time Software Engineer** ■■■■ *Anki*
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.

OTHER IOS EXPERIENCE: FULL-TIME & CONTRACT | 2012-2017

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

PUBLICATIONS

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