

willy nolan

Los Angeles, CA
willy@willynolan.com

Interests

- Music production
- Interaction design
- Pop culture of the 1980s

experience

Software Engineer

The Interaction Department
Los Angeles, CA. September 2023 - Present

Design and develop software solutions for clients in multiple industries.

Work on new and legacy codebases individually and with other developers.

Create web, native and embedded solutions for a variety of technical challenges in AI, real estate, entertainment and finance.

Senior Software Engineer

Sphere Entertainment Co.
Los Angeles, CA. May 2018 - September 2023

Developed simulation and visualization software for multiple platforms including VR.

Reviewed new code contributions for multiple projects to ensure best practices and consistent style.

Maintained and improved large, legacy code bases while providing direct user support.

Interactive Engineer

Obscura Digital (Acquired by Sphere Co.)
San Francisco, CA. June 2015 - May 2018

Engineered software for some of the biggest interactive installations and audio-visual events in the world.

Developed computational photography and video projection software for creative use cases.

Managed the development of a variety of software applications in multiple languages.

Improved internal documentation and software development practices.

Software Engineer & Creative Technologist

Madrone Studios
San Francisco, CA. March 2014 - June 2015

Designed and developed large-scale visual and interactive installations locally and internationally.

Created custom user-facing applications on short timelines.

Worked closely with creative directors to provide technical guidance for events and concept design.

skills

Programming Languages

Python
Javascript
C++ and C#
Graphics APIs (OpenGL, WebGL, Vulkan etc.)
HTML and CSS

Applications

TouchDesigner
Unity
Git

Miscellaneous

Lead Inventor on US Patents:
#11727630 and #11961181

All operating systems and shells

Networking, protocols and data formats

Software development paradigms

High-end graphics cards and projectors

education

M.S. Computer Science

Georgia Institute of Technology, 2020

Specialization in Computational Perception and Robotics.

Studied machine learning and computer vision as it applies to AI, robotics, signal processing, finance and art.

M.S. Journalism

The University of Southern California, 2013

Specialization in Broadcast and Digital Journalism.

Made extensive use of web technologies for journalism.

B.S. Communication Studies

Portland State University, 2010

Studied social media and web technologies and how they relate to communication.

selected projects

- Show control system at AT&T Stadium
- Social Canvas at MGM Cotai
- Video projections at Shantou University

These and other projects and research that can be shared publicly are documented at willynolan.com