experience

Software Engineer

The Madison Square Garden Company (MSG) Los Angeles, CA. May 2018 - Present

Develop simulation and visualization software for multiple platforms including VR.

Review new code contributions for multiple projects to ensure style and best practices are followed.

Maintain and improve large, legacy code bases while providing direct support to users.

Architect novel solutions and work with executives during the complete patent application process.

Interactive Engineer

Obscura Digital (Acquired by MSG) 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.

Software Engineer

NightWalker Clothing

Portland, OR. August 2013 - March 2014

Wrote the entire code base for the company's flagship MEAN stack application.

Handled all application deployment, monitoring and maintenance.

Established engineering and documentation best practices for a new development team.

skills

Programming Languages

Python Javascript

C++ and C#
OpenGL and WebGL

HTML and CSS

Applications

TouchDesigner Unity Git

Other

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 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

willy nolan

Los Angeles, CA E: willy@willynolan.com

Interests

- Sound synthesis
- Pop culture of the 1980s
- Travel