NICKON MIR

Los Angeles, CA
https://www.nickonmir.com

EXPERIENCE

VR Simulation & Unreal Tools Developer
07. 2019 - Present
Intuitive Surgical, Advanced Development

+ Developed in Unreal Studio to create a multi-user VR mechanical design review tool for surgical robot prototypes.
+ Programmed a pipeline automation tool (Python, C++, Blueprints) to take Solidworks exports and make pose-able Unreal assets, for spawning real-time in the simulation.
+ Utilized OptiTrack motion capture hardware to track and synchronize a real operating room to VR.
+ Designed a VR operating room to spawn pose-able robots, patients, and construct custom procedures.
+ Prototyped point-cloud and ray-marching medical visualization techniques.

Researcher & VR Developer
05. 2017 - 12. 2018
Johns Hopkins Medicine

+ Developed Unity game-like tasks for "Joey's Room", intended to prove VR's ability to elicit child OCD symptoms.
+ Programmed a C# serial port interface that records biometric data and includes it in the Unity data report.
+ Coded with event-based timers embedded in each task's manager to properly record the data.

Technical Artist & Designer
09. 2016 - 10. 2018
Escality Games

+ Developed in Unity a story-driven VR escape room game—"Conjuror's Eye"—with 5 others.
+ Designed and 3D modelled maps and puzzles in Autodesk Maya and Unity as the lead designer.
+ Wrote and voice acted the narrative cinematic sequences, embedded with hints for the escape puzzles.
+ Programmed level-managers in C# and Unity's VRTK plugin to create and organize interactive puzzle levels.

PROJECTS

Lead Developer & Game Designer
08. 2018
Art Trip - VR at UCLA

+ Scripted a narrative where a depressed Vincent Van Gogh wants to bring his painting's field back to life.
+ Tutored my team of 3 (two designers and a programmer) on Unity/VRTK development and C#.
+ Made a quest system with tasks to be completed between two Tilt Brush worlds linked by a portal-painting.

Arduino and Unity Developer
10. 2018
Reality Simulator - VR at Yale Hack

+ A 2-player dynamic 3D-simulation that morphs based on 4 analog real-life sensors on an Arduino.
+ Programmed a serial port streaming system from Arduino sensors to parameters of a real-time Unity animation.

EDUCATION
B.S. Computer Science
UCLA — University of California, Los Angeles
Expected
DEC 2020

Coursework	Computer Vision, Graphics, Networks, OS, AI, Linear Algebra, Multivariable Calculus, VR Art, Game Design.

SKILLS

Languages	Proficient with **C++, C, C#, Python, Unreal Blueprints.**
	Familiar with **Lisp, JavaScript, Bash, Batch, Prolog, OCaml, Java, HTML/CSS.**
Technologies	Unreal Engine, Unreal Studio, Unity, SteamVR, VRTK, Autodesk Maya, Blender, Optitrack/Motive. Arduino, WebGL (three.js), Adobe Premiere, After Effects, Illustrator, UDP/TCP, JSON, Git.
Skill Sets	**Software** — Mixed Reality, Game engines, Pipeline / Tools, Client-server networks, State machines, UI.
	Hardware — Audiovisual (sound boards, switchers, and cabling), Computer building, HTC Vive, Oculus.
	Art — 3D modelling/UVs, Animation, Film Editing, Cinematography, Motion graphics.