GEORGE

george.ok@pm.me

PROFESSIONAL EXPERIENCE

Strivr

Summer 2019

Software Engineer — Virtual Reality

Integrated a "quality control" mode into training experiences for easy in-headset navigation
Improved UI consistency, working closely with designers to implement their wireframes in **Unity**
Ensured compatibility across both desktop and mobile VR devices (the Oculus product family)
Applied photogrammetry techniques with **Kinect** output to import real-world assets into VR

Microsoft Corporation

Aug. 2016 – 2018

Software Engineer — Software-Defined Networking

Contributed to HNS, Windows' native virtual networking manager written in **C++**
Added IPv6 support and a multi-threaded notification system to react to external events
Implemented and officially documented **Kubernetes** alpha support for shared pods on Windows
Added versioning support for seamless transitions of service data across Windows upgrades
Developed a public cloud network policy provisioner for Azure-based systems

Sony Network Entertainment Int'l.

Summer 2015

Software Engineer — Test Automation Infrastructure, Intern

Ported the PlayStation's remote firmware upgrade protocol to a cross-platform **Python** toolkit
Interfaced with **Selenium** to automate testing and QA on the PlayStation® 4's Store
Created a multi-threaded network heartbeat service to facilitate distributed testing via **Jenkins**

CE Resource, Inc.

Apr. 2013 – Aug. 2014

Jr. Software Engineer — Full-Stack

Developed back-ends in **PHP** and **Django** for both internal and customer-facing websites
Independently designed, developed, and integrated a survey site used by thousands of customers
Queried **PostgreSQL** databases to efficiently process terabytes of customer data

EDUCATION

Georgia Institute of Technology

Spring 2020 (4.0 GPA)

Master of Science in Computer Science — *Computational Perception & Robotics*

Explored ideas in machine learning, computer vision, robotics, and finance
Deepened my understanding of cryptography, operating systems, and algorithms
Published ~800 pages of comprehensive LaTeX notes on these topics to reinforce knowledge

University of California, Berkeley

Spring 2016 (3.3 GPA)

Bachelor of Arts in Computer Science — *Computing Systems & Graphics*

NOTEWORTHY PROJECTS

Quarterback Simulator, *simulating real-world football plays in virtual reality*

Processes and reprojects real NFL footage using **OpenCV** to classify players and track motion
Recreates plays in an interactive VR simulation in **Unity** with the "player" as the quarterback
Developed in **Python** and **C#** using **OpenCV** and **Unity**
Developed as a graduate capstone project for the *Georgia Institute of Technology*

Beacon Platform, *an Ethereum-backed messaging platform*

(unreleased)

A centralized messaging platform written in **Qt**/**C++** that eliminates the need for platform trust
Uses modern cryptographic techniques like the **Signal** protocol to ensure message confidentiality
Automates out-of-band identity verification in **Ethereum** for validating recipient authenticity

Zenderer, *a 2D OpenGL game development framework*

A rapid game prototyping framework, written in **C++** and ported to **JavaScript** with **WebGL**
Applied to create a demo 2D puzzle-platformer and a peer-to-peer real-time strategy game
~18,000 lines of code, including meticulous **Doxygen** documentation and a GitHub wiki