# GEORGE

george.k@gatech.edu

## EDUCATION

### University of California, Berkeley
*Class of 2016*

*Bachelor's, Computer Science*

Developed diverse projects such as secure file sharing, stereograms, and inverse kinematics
Specialized upper-division studies in systems, computer graphics, and networking
Worked as a Lab Assistant for the *Machine Structures* course

### Georgia Institute of Technology
*Aug. 2018 – present*

*Master's, Computer Science*

Reinforcing and deepening my understanding of operating systems and cryptography
Broadening my horizons into computational perception and robotics
Published a comprehensive introduction to computer vision based on *CS6476*.

## PROFESSIONAL EXPERIENCE

### Microsoft Corporation
*Aug. 2016 – 2018*

*Software Engineer — Software-Defined Networking*

Contributed to HNS, the native virtual network manager in Windows
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 between 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*

Interfaced with Selenium to automate testing on the PlayStation® 4's Store
Ported the PlayStation's remote firmware upgrade protocol to a cross-platform Python toolkit
Created a multi-threaded network heartbeat service to facilitate distributed testing
Maintained and improved unit test stability and performance for the PlayStation Store®

### CE Resource, Inc.
*Apr. 2013 – Aug. 2014*

*Software Engineer — Full-Stack, Intern*

Developed back-ends with a variety of toolkits for both internal and customer-facing websites
Queried PostgreSQL databases to efficiently process large quantities of data
Styled and designed front-ends using both XSLT and HTML5 suites
Independently implemented and integrated a customer-facing standalone survey site
Facilitated test-driven development using tools such as Django's `unittest` framework

## NOTEWORTHY PROJECTS

### Cicada, *a peer-to-peer distributed networking framework*

Python networking framework designed to provide optimal routes with DHTs
Designed for distributing data efficiently and anonymously in a decentralized manner
Features a well-documented API and includes samples like a serverless IM client

### Zenderer, *a 2D OpenGL game development framework*

A C++ framework enabling rapid game prototyping, also ported to JavaScript w/ WebGL
Applied it 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

## PROFESSIONAL INTERESTS

Undying passion for P2P and decentralized networking, as well as trustless architectures
Study of consensus algorithms, zero-trust protocols, and other modern cryptographic principles
Exploration of developing multiplayer, cross-platform puzzle and strategy games
Interest in the potential of public blockchains beyond just currency