GEORGE

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WORK EXPERIENCE

Microsoft Corportation *Software Engineer, Software-Defined Networking* *August 2016 - Present*
Contributed to the Windows **H**ost **N**etworking **S**ervice, a virtual network manager
Completely modularized the Hyper-V VM stack to exclusively use HNS for networking
Added versioning support for seamless transitions between Windows upgrades
Extensively used containerization platforms like Docker and Kubernetes
Developed a custom local network policy provisioner for Azure
Improved internal test automation using WTT workflows, TAEF, and PowerShell

Sony Network Entertainment Int'l. *Software Engineer, Test Automation, Intern* *May 2015 - August 2015*
Interfaced with Selenium to automate testing on the PlayStation® 4
Implemented custom network protocols for installing firmware in a suite of cross-platform Python tools
Created a multi-threaded network service to facilitate distributed testing
Maintained and improved unit test stability and performance for the PlayStation Store®

CE Resource Inc. *Software Engineer, Full-Stack, Intern* *April 2013 - August 2014*
Developed back-end functionality in PHP for internal tools and customer-oriented websites
Interfaced with XSLT and HTML5 to maintain and develop dynamic web pages
Developed a standalone survey site in Python using Django and a jQuery front-end
Interacted with PostgreSQL databases to update and retrieve customer and internal data
Collaborated with team members over multiple SVN and `git` repositories
Test-driven development using Django's `unittest` framework

EDUCATION

U.C. Berkeley, Bachelor's in Computer Science *Graduated May 2016*
Studied a diverse range of courses including security, advanced algorithms, etc.
Specialized studies in systems programming and network engineering
Participated in a variety of hackathons and social-good projects outside of coursework
Worked as a Lab Assistant for a semester of *Machine Structures*

NOTEWORTHY PROJECTS — *GitHub / Blog*

Zenderer — *2D OpenGL game development framework*
A C++ framework enabling rapid game prototyping
Ported foundations to JavaScript and WebGL
Every feature is well-documented using Doxygen
18,000 lines of code, including comments

Cicada — *Peer-to-peer distributed routing framework*
A Python networking framework optimizing routes with DHTs
Optimizes connectivity and hop counts between peers
Designed for distributing data with maximum efficiency
Includes a visual swarm AI demonstrating distributed knowledge

ADDITIONAL TECHNOLOGIES

Object-Oriented Design & Concurrency	Strong foundations using Python, C++$_{17}$, and C# Multithreaded, synchronized enterprise and networking frameworks Games, graphical applications, and game development libraries	*enterprise proficiency*
Networking	An undying passion for peer-to-peer and decentralized networking BitTorrent, distributed algorithms, lock-step sync, gossiping Studying of blockchain technologies like Bitcoin & Ethereum	*hobbyist proficiency*
Security & Privacy	Extremely conscious of privacy and security concerns Developed a secure file-sharing framework in Python with 1-to-1 and group-based sharing, as well as revocation	*academic proficiency*
Graphics & Games	Game development in both pure OpenGL as well as in Unity Art and modeling technologies like Blender and Photoshop Modern computer graphics algorithms and shader development	*academic proficiency*
Full-Stack Web Development	Ground-up design with Apache, PostgreSQL, and Django Full integration of a deep learning chatbot into a Flask-based site P2P strategy game using WebGL, HTML5, and WebSockets Personal website development with Ruby and Jekyll	*enterprise proficiency*