Jonathon Yu

STANFORD 2017

B.S. in Science, Technology, and Society

Relevant Coursework

CS106A: Programming Methodology
CS106B: Programming Abstractions (Data Structures)
CS107: Computer Organization and Systems
CS110: Principles of Computer Systems
CS108: Objected-Oriented Design
CS147: Human-Computer Interfaces
CS181: Technology Policy and Ethics

Proficiencies

Linux/Unix, Git
Mobile and Desktop Applications:
Windows UWP, Android
Programming languages:
C, C++, Java, Python, Javascript
Web Development:
Node.JS, React, Django, HTML, CSS

Miscellaneous

Backpacked 1000km across Spain
Waltz and Swing Dancing
Creative Writing
Photography

Contact

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EXPERIENCE

SOFTWARE ENGINEERING INTERN
Dell Technologies | Summer 2016

- Developed network fabric utility for open network switch OS (Linux kernel based) to measure network utilization with extensibility for multiple fabric types
- Developed from python prototype to fully multi-threaded C++ program
- Utilized Linux sockets to communicate discoverability data

SOFTWARE ENGINEERING INTERN
Dell Technologies | Summer 2015

- Developed automated testing services for UI to backend IPC layer in python with interfaces to internal C++ APIs
- Defined design and prototyped alongside evolving OS

PROJECTS

HEAP ALLOCATOR

- Implemented malloc, realloc, free, heap coalescing, active defragmentation from scratch: segmented free list, block bins, implicit size caching, allocation-time block splitting
- designed novel 24 bit block/header/footer segments which enabled aggressive optimization for throughput and util
- Achieved 113% throughput and 91% memory utilization scores on class benchmark

MAPREDUCE

- Implemented a thread pool and a mapreduce server to spawn and manage worker threads across multiple client machines in Stanford's Myth cluster

VR SHOPPING EXPERIENCE PROTOTYPE | UE4 SDK

- Needfinding and user explorations to create concept for VR shopping experience
- Refined prototypes with user testing
- Presented high-fidelity HTC Vive demo

OTHERS

- Unix Shell: multiprocess, piping, process/job management
- Web Proxy: multithreaded, site blacklisting, caching, proxy chaining