Damon A. Doucet

MIT Computer Science 2016
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Selected Coursework

Software Studio, Computation Structures (building a CPU), Performance Engineering, Communicating with Mobile Technology, Game Design, Signals and Systems, Design and Analysis of Algorithms, Operating System Engineering, Economic Applications of Game Theory, Computer Systems Engineering, Distributed Systems Engineering, Advanced Performance Eng for Multicore Applications

Selected Professional Experience

Dropbox – Carousel Software Developer Intern, Summer 2014
- Dealt with highly concurrent C++ as shared code for Android and iOS
- Rearchitected thumbnail prefetcher to download larger thumbs for larger UI images
- Created system for separate modules to request thumbnails to be prefetched
- Designed eviction policy for thumbnail cache

Khan Academy – Growth Software Developer Intern, Summer 2013
- Quality of life improvements to badges, including sending emails when earned
- Emails for questions/answers on videos/programs to bring users back to the site
- Hackathon Project called MathRacer (Head-to-head Typeracer for math problems)

Selected Final Projects

Fault-Tolerant Screen-Sharing Distribution – Distributed System Engineering (http://git.io/vkRQe)
- Created an application for fault-tolerant decentralized screen sharing
- Architected for multiple distribution protocols and performance testing

Process Migration in JOS – Operating System Engineering
- Serialize and send a running process over the network to another running instance of JOS
- Elegant library and system call interface for sending a process and its dependent processes

Personal Programming

Colosseum – Xbox 360 2D 1v1 Platformer video game (http://youtu.be/8JP3MDYp2rc)
Kinect App – particles form any string, follow user's hands via Kinect (http://youtu.be/beqNuHJg0Xs)

Teaching

Fall 2014 – Teaching Assistant for 6.172 (Performance Engineering). Mentored at PennApps X
Spring 2014 – Tutored 6.00, 6.005, 6.006 for a total of 6 hours per week (HKN Tutoring)
Winter 2014 – Mentored at Blueprint (MIT's High School Hackathon)
November 2012, 2013, 2014 – Taught 2-hour classes on hacking Windows games using Assembly
January 2013 – Teaching Assistant for 6.S096 (Introduction to C/C++)