SCOTT HARVEY

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EDUCATION

Stony Brook University, New York *GPA: 3.62*
Pursuing M.S. Computer Science *May 2016*
B.S. Computer Science, B.S. Applied Math & Statistics *Dec. 2014*

SKILLS

Languages C, python, Java, x86-64, SQL, JavaScript, SML, MATLAB
Tools/Other git, make, CMake, *nix, MySQL Workbench, Wireshark

PROJECTS

File Descriptor Daemon, *C Networking* *Dec. 2014*

· Designed daemon which allows under privileged processes to obtain raw and packet sockets.
· Useful when users may want raw sockets but admin does not want them to have root or NET_CAP_RAW.

On Demand Routing, *C Networking* *Nov. 2014*

· Programmed a shortest-hop routing protocol to replace IP in static networks of unknown connectivity.
· Used packet sockets to discover routes and deliver application payloads.
· Local ODR server performed the routing and multiplexed messages to apps using local sockets.

xTCP, *C Networking* *Oct. 2014*

· Implemented a reliable byte-stream transport protocol over UDP, based off TCP Reno.
· TCP features such as smoothed-RTT based retransmission timeout and fast retransmission.

TravelociRaptor, *Java Webapp* *Spring 2014*

· Created a flight reservation and reverse auction webapp using JSP, finishing as the top 3 of 20 teams.
· Designed the MySQl database to support: customers, employees, and managers.

Nachos, *Java OS* *Fall 2013*

· Worked on modules of a simulated OS in Java which ran MIPS executables.
· Extended the kernel to support mmap/munmap along with a write-back cache for disk accesses.

Spriter, *Java Application* *Fall 2012*

· Created a 2D drawing editor using Swing to create sequences of poses for animating game sprites.
· Completed from an unfinished and broken starting state of 25+ classes.

EXPERIENCE

Stony Brook University, File Systems & Storage Lab Stony Brook, NY
Research Assistant under Prof. Scott Smolka *July 2014 - Dec 2014*

· Research on hierarchical run-time assurance frameworks using MATLAB/Simulink and python