Joseph Marvin McGee

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EDUCATION

Master of Computer Science, (expected June 2018) Cumulative GPA: 4.000/4.000
Bachelor of Computer Science and Engineering, June 2016
University of California, Davis

EXPERIENCE

Teacher's Assistant, University of California, Davis

FQ2016 ECS 132: Prob & Sta in CS **09/16 –Present**
SQ2016 ECS 030: Introduction to Programming (in C) **03/16 – 06/16**
SQ2015 ECS 122A: Algorithm Analysis and Design **03/15 – 06/15**

Software Engineer, Intel **06/15 – 09/15**

- Modified OpenMPI to route network I/O through DPDK framework.
- Debugged OpenMPI and DPDK-based TCP/IP user-space network stacks to diagnose errors.
- Implemented deficiencies in DPDK-based TCP/IP network stacks to make them compatible with OpenMPI.
- Diagnosed and resolved linkage errors resulting from the interaction of several layers of shared/static libraries.

Software Engineer, Intel **06/14 – 09/14**

- Interpreted broad project requirements to create specific designs.
- Developed a database-centered web application to store automated testing data.

Student Manager, Engineering Student Startup Center **10/13 – 03/15**

- Created simple scripts to manage event-scheduling and forms management.
- Assisted students with equipment: 3D Printer, 3D Scanner, ShopBot.
- Planned and facilitated events; Coordinated with student-run organizations.

Software Engineer, Archer **05/13 –Present**

- Design and develop prototype computer vision algorithms
- Design computer vision algorithms to facilitate a spatial input mechanism.
- Engineer prototype under time-pressure to show progress to potential investors.
- Design and debugged systems to visualize and quantify correctness of algorithm output.

PROJECTS

Student Research **09/15 –Present**
University of California, Davis

- Integrate DPDK into OpenMPI communication subsystem to characterize potential performance benefits
- Analyze bottlenecks in utilizing 10/40/100Gb network speeds on commodity hardware/software
- Explore extensible and flexible solution to scale to increasing core-counts and network speeds

Fort Nitta: An Atari Rampart Remake **01/15 – 03/15**
ECS 160: Software Engineering

- Designed specification for multi-player network protocol–running over TCP/IP.
- Designed and wrote a multi-threaded server to facilitate multi-player communications.
- Managed multiple team members to efficiently work towards project goals.

VirtualMachine **01/15 – 03/15**
ECS 150: Operating Systems

- Implemented a preemptive multitasking scheduler.
- Implemented blocking file access through use of asynchronous I/O on shared memory.
- Partially implemented access to a FAT file system image.

SKILLS

Exposed	Familiar	Proficient	Advanced
Lisp, Prolog, System Verilog, Vagrant	JavaScript, R, SQL, LaTex, OpenCV, gdb, ctags, Maven, WireShark	Python, Java, ssh, git, bash, Make, Vim, Eclipse, Virtualbox	C, C++