Rafferty Hutari Askara

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Education:

Bachelor of Science in Computer Science
University of California, Davis — September 2014 – March 2017 (Expected)

Diablo Valley College, Pleasant Hill, CA — August 2012 – May 2014

Relevant Coursework:

Algorithm Design	Computer Architecture I, II	Theory of Computation
Object Oriented Programming	Operating Systems	Database Systems
Computer Networks	Program Design and Data Structures	Software Engineering

Technical Skills:

- Language Proficiency in Java and C/C++.
- Familiar with Python, LISP, Prolog, MATLAB, R, and JavaScript.
- Knowledge in Web Development tools and Frameworks such as HTML, Django, CSS and Bootstrap.
- Working knowledge of HTTP, TCP, IP, and basic Socket Programming.
- Familiar working with Database Management Systems notably MySQL and PostgreSQL.
- Comfortable working in Windows, Linux, and developer tools such as Git/Github.
- Other Applications: MS Word, MS Excel, MS PowerPoint, MS Access, and Logisim.

Projects:

Packet Simulation — Fall 2016

- Collaborated with a partner to simulate a simple server queue model – utilizing Python's library Simpy.
- The model is used to simulate the binary back-off algorithm of the IEEE 802.3 Ethernet Protocol.
- Simulation is also run on linear back-off to analyze and compare the throughput of each test case.

Ashell — Spring 2016

- Collaborated with a partner to create a simple shell using C++.
- The shell functions just as a normal UNIX shell and can execute scripts.

MIPS CPU — Spring 2016

- Collaborated with a partner to design a 5-stage pipelined MIPS CPU using Logisim.
- Implemented an effective microcode to simplify design of the machine.
- Designed the system to support data forwarding, stalling, predicting branches and squashing.
- Developed final product through different stages and expansion from simpler systems and prototypes.
- Conducted several testing to the system in order to achieve expected standards.

Cache Design — Winter 2016

- Collaborated with a partner to design a Set Associative Cache using Logisim.
- Devised an appropriate FSM to determine the control signals of the circuit.
- Designed Cache with implementation of Write Back Policy and LRU Eviction Policy.

Basketball Database — Fall 2011 – Spring 2012

- Used Java to create a Database for a school's basketball team.
- Collected data pertaining to the roster, schedule, and match history.
- Database aimed to provide better scheduling and management for the coach.