DESMOND H. VEHAR

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EDUCATION

University of California, Santa Cruz
B.S. Computer Science
Cumulative GPA – 3.61(Cum laude)
Graduation Date: December 2014

RELEVANT COURSE WORK

Intro. to Software Engineering, Computer Architecture, Foundations of Interactive Game Design, Game Design Experience, Intro. to Computer Graphics: 3D Modeling, Comparative Programming Languages, Hypermedia and the Web, Computer Security, Intro. to Operating Systems, Intro. to Analysis of Algorithms, Advanced Programming, Artificial Intelligence, Computer Systems and Assembly Language, Algorithms and Abstract Data Types, Fundamentals of Compiler Design I, Intro. to Data Structures, Intro. to Programming(Accelerated), Vector Calculus, Linear Algebra, ...

WORK EXPERIENCE

Computer Science Tutor **January 2013 – September 2014**
UCSC MEP, STEM Diversity Research Programs, and Independently

- Clarified concepts from Data Structures and Algorithms and Abstract Data Types courses.

Software Engineering Internship **June 2014 – September 2014**
United States Federal Government (Intelligence Community)

- Designed, implemented, and tested C++ applications within a framework to improve the data flow of the organization. Data latency, operational costs, and security risks were reduced as a result of my work.
- Held a TS/SCI with Full Scope Polygraph Clearance.

Undergraduate Research Assistant **September 2013 – June 2014**
UCSC Expressive Intelligence Studio

- Successfully implemented a Reusable Gameplay Trace Sampler for PuzzleScript games based on a Postdoctoral Researcher's theoretical architecture.
- Integrated the general game playing agent, CadiaPlayer, into a PhD student's game designer oriented programming language, Gamelan using the C to XSB Prolog interface.

Software Engineering Internship **June 2013 – September 2013**
The Boeing Company: Space & Intelligence Systems El Segundo, CA

- Designed, implemented, and tested the expansion of the Cortex ground station portion of a Dynamic Satellite Simulator while adhering to the detailed Cortex specification.
- The implementation of my features for the DSS used shared memory, TCP/IP, pthreads, and more.

Android Application Development Internship **July 2012 – September 2012**
UCSD Calit2 (California Institute for Telecommunications and Information Technology)

- I highly influenced the overall UI design of the application, a research tool, by drafting UI sketches to contribute new ideas and by implementing the features my supervisors requested.
- I implemented many features that made the tool more effective: the ability to email the data from sessions, streamlined the process of starting a session and connecting to medical Bluetooth devices, and many more.

Data Mining Internship **July 2011 – September 2011**
UCSD Calit2 (California Institute for Telecommunications and Information Technology)

- Used Matlab and Matlab Toolboxes to extract meaningful information from various health datasets.
- This internship took place the summer before my freshman year.

PROJECTS

Computer Security Term Paper **December 2014**

- Surveyed several research papers that described innovative methods for detecting and protecting against XSS vulnerabilities in web applications.

Artificial Intelligence Final Project **March 2013**

- The strategy and learning I built into my agent allowed it to take 2nd place in the final round of the completion.

Google's Android Camp **July 2012**

- Came up with my team's idea: a virtual bulletin board that would improve the publicity of campus events.
- Created the SQLite relational database.

Introduction to Computer Systems and Assembly Language Final Project **June 2012**

- Earned a perfect score for my implementation of the popular board game Mastermind in a stack based assembly language for the Motorola 68HC11 Microcontroller. The 68HC11 was embedded in a circuit containing LEDs, switches, LCD's, and other components all of which I utilized in my project.

LANGUAGES, SOFTWARE, AND OS

C (Strong), C++ (Strong), Java (Strong), Web2Py (Strong), Python (Medium), Flex (Medium), Bison (Medium), Android (Medium), Haskell (Medium), JavaScript (Strong), jQuery (Medium), Ajax (Strong), HTML5 (Medium), CSS (Medium), Node.js (Medium), Prolog (Fair), Common Lisp (Fair), Git (Medium), Subversion (Medium), RCS (Medium), Eclipse (Strong), gdb (Strong), Linux (Strong), Windows (Strong)

AWARDS

2014 Microsoft NSBE Annual Convention Travel Scholarship **January 2014**

- Selected based on the strength of my accomplishments and the campus leadership I have demonstrated.

Dean's Honors List (x4) **– University of California, Santa Cruz** **September 2011 – December 2014**

CLUBS

- President (2013/4), Vice-President (2012/3), Senator (2012) – National Society of Black Engineers
- Member (2012 – 2013) – National Society of Collegiate Scholars
- Member (2011 – 2014) – MESA Engineering Program