Nathan Tsai

Volunteer | College Student | Aspiring Software Engineer

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EXPERIENCE

Citrix, Santa Barbara — *Customer Care Intern*

JULY 2015 - SEPTEMBER 2015

- Employed techniques to manage a wide workforce of customer care agents
- Created analytical reports that improved the productivity of the department
- Evaluated calls and assessed the effectiveness of the agents' customer service
- Fabricated training techniques to achieve higher customer satisfaction

EDUCATION

University of California, Los Angeles | *Computer Science*

SEPTEMBER 2015 - PRESENT GPA: **3.4**

Major: Bachelor of Science, Computer Science and Engineering
Completed Courses: Algorithms, Data Structures, Comp. Organization, Discrete Mathematics, Multivariable Calculus, Linear Algebra, Mechanics
In Progress: Software Construction, Logic Design of Digital Systems

Dos Pueblos High School, Santa Barbara

AUGUST 2011 - JUNE 2015 Community Service Hours: **302** ACT: **34** GPA: **4.76**

PROJECTS

Frackman — *Interactive User vs. AI Video Game*

- Based on the 1982 game Dig Dug, I implemented a game using C++, exhibiting concepts such as polymorphism, inheritance, and encapsulation
- Designed a method for the AI to follow the location of the player on the grid with a queue-based algorithm that performs a breadth-first search
- Devised a hierarchy of game objects to both distinguish the different objects and store them in a single array under a superclass to prevent code duplication

Blackjack — *Virtual User vs. AI Card Game*

- Programmed a virtual card game with Java based on one of the most popular casino games, by implementing an aesthetic interface and interactive graphics
- Constructed a decision tree that guides the AI and teaches it how to play the game and make smart decisions based on intuitive game logic
- Developed code that takes into account the varying values of the Ace card, assigning the card a value when it is advantageous for the player or the AI

SKILLS

Programming Languages:
C, C++, Java, Assembly

Programming Concepts:
Object-Oriented Programming, Data Structures, Sorting Algorithms, Inheritance, Polymorphism, Big O Notation, Encapsulation

IDE's: Eclipse, XCode, Microsoft Visual Studio

Operating Systems: Windows, Mac OS X, Linux

Programs: Salesforce, Solidworks (CAD), Microsoft Word, Excel, Powerpoint

Languages: English, Mandarin Chinese, Latin

AWARDS

AP Scholar With Honor
Granted to students who score at least a 3.25 on all AP Exams taken and score a 3 or higher on four or more of these exams

Community Service Excellence Award
Awarded to students who have given at least 200 hours back to the community through volunteer work