

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

Classes: Comp Sci 1, Com Sci 2, Computer Organization, Discrete Math

Organizations: Theta Tau Professional Co-ed Engineering Fraternity,
Foundations Dance Choreography, Asian American Christian Fellowship

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, Microsoft Visual
Studio, XCode

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