

Jonathan Sun

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EDUCATION

UC BERKELEY

B.A. IN COGNITIVE SCIENCE

MINOR IN COMPUTER SCIENCE

Expected May 2018 | Berkeley, CA

LYNBROOK HIGH SCHOOL

Grad. June 2014 | San Jose, CA

SKILLS

PROGRAMMING

Proficient:

Java • Python • SQL

Familiar:

C • PHP • JavaScript • HTML • CSS

PLATFORMS & FRAMEWORKS

Linux • MySQL • SQLite • Laravel

USEFUL TOOLS

Git • \LaTeX

COURSEWORK

- Efficient Algorithms and Intractable Problems
- Database Systems
- Artificial Intelligence
- Computer Security
- Machine Structures (Computer Architecture)
- Data Structures & Algorithms
- Structure & Interpretations of Computer Programs
- Discrete Math & Probability Theory

AWARDS

- US Army Reserve National Scholar/Athlete Award (2014)

EXPERIENCE

SILICON VALLEY CHINESE SCHOOL | UI/UX WEB DEVELOPER

Summer 2017 | San Jose, CA

- Created internal web pages for student registration and keeping track of student records.

VOICENT COMMUNICATIONS, INC. | SOFTWARE DEVELOPER INTERN

Summer 2016 | Mountain View, CA

- Designed the management websites that automatically fetches data and generates reports for the company's internal use as well as aggregate data from user profiles using SQL, PHP, and JavaScript.
- Performed QA product testing on new SaaS products, software updates, and filed bug reports.

SILICON VALLEY CHINESE SCHOOL | UI/UX WEB DEVELOPER

Summer 2016 | San Jose, CA

- Created internal web pages for billing and keeping track of student records.

UC BERKELEY | CS61A LAB ASSISTANT

Aug 2015 – May 2016 | Berkeley, CA

- Guided CS 61A students through labs, homework assignments, and projects.

PROJECTS

PERSONAL WEBSITE | HTML, CSS, JavaScript, jQuery, PHP, Bootstrap

Personal website showcasing my experiences and projects. Created with HTML, CSS, JavaScript with jQuery and Bootstrap. Further used PHP to check and direct user's messages to myself in the Contact Me page.

NETWORK ATTACK | Bash Script, C, Python, Wireshark, sslniff, Scapy

Exploited FTP vulnerability, analyzed and captured packets using Wireshark and tcpdump, manipulated seed in pseudo-random number generators, abused certificates to rewrite network traffic, performed DNS spoofing, and wrote bash scripts to automate the processes.

SECURE FILE STORAGE AND SHARING | Python, PyCrypto

Ensures confidentiality, integrity, and authenticity in a compromised server that allows uploading/downloading, sharing, revoking, and updating files.

EXPLOITING VULNERABLE C CODE | Bash Script, C

Allows attacker to gain root access by taking advantage of buffer overflows, off-by-one, and ret2eax to bypass Address Space Layout Randomization in C code.

AI PAC-MAN GAME | Python, PyCharm

Created an intelligent Pac-Man that maximizes winning using Searching Algorithms, Constraint Satisfaction Problems, Minimax, Expectimax, Markov Decision Processes, Reinforcement Learning, Bayes' Nets, Hidden Markov Models, Inference, and Classification using Perceptrons.

DATABASE SYSTEM | Java, SQL

Includes File Management, B+ trees, Simple Nested Loop Join, Page Nested Loop Join, Block Nested Loop Join, Grace Hash Join, Query Optimization, and Concurrency Control.