

Calvin Li

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Education

Stony Brook University | Honors College

B.S. in Computer Science

Specialization in Systems Software Development

Stony Brook, NY

Aug 2015 – May 2019

Relevant Coursework: Cloud Computing, Systems Fundamentals I - II, Game Programming, Object Oriented Programming, Data Structures and Algorithms, Analysis of Algorithms (TA)

Experience

Van Andel Research Institute

Student Intern - High Performance Computing

Grand Rapids, MI

Summer 2017

- Developed a storage/cost model using Google Charts API to assist researchers in data visualization.
- Coordinated needs assessments of data storage and performance for the Scientific Computing effort.
- Worked under IT/Administration department heads to develop an understanding of HPC research demands.

Stony Brook University

Teaching Assistant - Analysis of Algorithms

Stony Brook, NY

Fall 2017

- Held weekly review sessions on lecture content such as Big O Notation, sorting algorithms, and dynamic programming.
- Provided one on one assistance and conceptual instruction during office hours.
- Assisted in grading homeworks, reviewing and proctoring exams, and creating answer keys.

Stony Brook University

Research Intern

Stony Brook, NY

Fall 2016

- Developer in the Software Systems Division at the Center of Excellence in Wireless and Information Technology.
- Created dynamic, cross-browser functionality of NY Healthcare websites.
- Parsed web entries on New York's Clinic Directory into JSON format to facilitate data processing.

Projects

Shell

- Wrote a basic shell that supports scripting and operations such as builtin commands and executables.
- Implemented I/O redirection and piping on all commands.
- Managed signals for child process state changes, handling foreground processes and jobs.

Dynamic Memory Allocator

- Maintains a segregated free list to manage dynamic memory allocation.
- Implemented error-checking malloc, realloc, and free functions with backwards coalescing.
- Created unit tests using the Criterion Unit Test framework.

Regio Vinco Map Editor

- Developed a map editing application which tests players on geographical knowledge.
- Includes file I/O using JSON, with sound and image file editing capability.
- Implemented an algorithm to interpret coordinate data and construct interactive polygons to represent countries.

Skills

Languages: Java, C, Javascript, HTML/CSS

Technologies: Node.js, Google Cloud Platform (GCP), Git, Nginx, Firebase, Bootstrap