# Samuel Woods

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# **EDUCATION**

# **University of California San Diego**

Sept 2017 - Dec 2021

Mathematics - Computer Science B.S.

- Emphasis on data structures and algorithms
- Well versed in analysis, abstract algebra, advanced calculus, and discrete math
- Programs of study in Business and Japanese
- University of California San Diego Ultimate Frisbee Team

### PROJECT EXPERIENCE

#### **Academic/Personal Projects**

Sept 2019 - Current

- Compression program created using Huffman Coding in C++
- Generic graph constructor that takes in an edge list in CSV format. It can find the shortest path, connected components, and minimum connecting threshold between nodes. Used to graph HIV transmission cluster data gathered from a recent HIV-TRACE done at UCSD.
- Designed ArrayList, LinkedList, HashTable, Deque, Queue, Stack, PriorityQueue, BinaryTree, and BinarySearchTree from scratch using generics. Unit tested against their respective Java Collections subsets.
- Randomly generated maze game in Java with collision and WASD movement
- Python webapp using Jinja2 and MySQL
- Developed chess in Java

# **WORK EXPERIENCE**

# CedarBridge Group

Jun 2019 - Sept 2019

Intern

- Created reports and spreadsheets for Mathematica
- Designed a thoroughly researched internship program for CedarBridge Group
- Performed on-call duties across departments such as paperwork, mailing, and website editing
- Coordinated client meetings and team communications

# **SKILLS & TECHNOLOGIES**

- Programming Languages: Python, Java, C, C++, Haskell, Assembly (ARM), MATLAB
- Languages: English (Native), Japanese (Advanced), Spanish (Basic)
- Other: Bash, Git, GDB, Valgrind, HTML5, CSS3, Jinja2, MySQL

#### LINKS

- Website: <a href="https://samuelwoods.me">https://samuelwoods.me</a>
- GitHub: <a href="https://github.com/samuellwoods">https://github.com/samuellwoods</a>
- LinkedIn: <a href="https://linkedin.com/in/samuellwoods">https://linkedin.com/in/samuellwoods</a>
- LeetCode: https://leetcode.com/samuellwoods