Asher Etherington
COMPUTER SCIENCE

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github
Linkedin

MOST RECENT WORK EXPERIENCE

Home Depot, Sherwood, OR. - Freight team associate

- Responsible for the transportation of thousands of dollars of goods from the truck to the shelves on a daily basis to ensure customer needs were met and shelves remained stocked
- Experience operating heavy machinery such as lift trucks

Programming Projects

- John Conway's Game of Life
  - Written in C for use in a Unix environment
  - This program is an implementation of John Horton Conway's 'Game of Life' simulation on a matrix in C.
  - Compiles the executable 'life' that can be run with various command line arguments
  - Use of the command line arguments for the executables is explained in the readme
  - Can be run to animate each generation of the universe or can be run to only show the final generation of the universe
- Lempel-Ziv Encoding
  - Written in C for use in a Unix environment
  - An implementation of the LZ78 compression algorithm in C that can be used to compress/decompress files
  - Compiles the executables 'encode' and 'decode' that can be run with various command line arguments
  - Both encode and decode keep track of the compression ratio between the compressed and uncompressed files
  - Use of the command line arguments for the executables is explained in the readme
- SSH Encoding
  - Written in C for use in a Unix environment
  - Makes use of the GNU Multiple Precision Arithmetic Library in order to make the generated public and private keys far larger so that the encryption is far more secure
  - Uses the Schmidt-Samoa Algorithm to generate a public and private key that can then be used to encrypt/decrypt files.
  - Compiles 'keygen', 'encrypt', and 'decrypt' executables that can be run with various command line arguments
  - Use of the command line arguments for the executables is explained in the readme

RELEVANT COURSES

- **CSE 20 and CSE 30:** Programming with Python - Development in Python focusing on structuring software in terms of objects endowed with primitive operations.
- **CSE 13S -** Experience in Programming in C within a Unix environment with an emphasis in computer systems, algorithm design, and development, data types, and program structures.

Developing understanding of process model, compile-link-execute build cycle, language-machine interface, memory, and data representation.

- **CSE 12** - Programming in Computer Assembly Language with RISC-V. Focus in sequential circuits, common logic elements, programmable logic devices. Experience studying the electrical behavior of circuits.

EDUCATION

University of California Santa Cruz - *Bachelor of Science in Computer Science Undergraduate*
September 2021 - June 2025

- GPA ~ 3.6
- Dean's List Recipient
- Member of Alpha Epsilon Pi Fraternity Sigma Zeta Chapter