

# Hassan Abdi

[hassanhbb01@gmail.com](mailto:hassanhbb01@gmail.com)

Beaverton oregon

A dedicated **Computer Science student** majoring in **Software Engineering** with a minor in **Mathematics**, currently holding a **3.2 GPA**. Strong foundation in programming, data structures, and system-level development, with hands-on experience in various programming languages and software methodologies. Passionate about problem-solving, software design, and continuous learning to contribute to innovative tech solutions.

## Projects

### AI-Powered Chatbot with Virtual Cat Companion

*Python, NLP*

Developed an interactive chatbot featuring a virtual cat to enhance user engagement, utilizing natural language processing for conversational AI.

### Game Menu System Using Binary Search Tree

*Python, OOP, Binary Search Trees*

Created an efficient game menu system leveraging binary search tree structures for quick navigation and option selection.

### Interactive Website with Virtual Cat Volunteer

*HTML, CSS, JavaScript*

Designed a dynamic, responsive website with an integrated virtual cat volunteer for interactive user engagement.

### Mastermind Game in Assembly Using Hex Numbers and Colors

*Assembly Language*

Developed a Mastermind game in assembly language, incorporating hexadecimal arithmetic and color codes for enhanced gameplay mechanics.

### Personal Blog Website with Virtual Cat Guide

*HTML, CSS, JavaScript, WordPress*

Built a personal blog website with a virtual cat assistant, focused on creating an engaging user experience and seamless content navigation.

### SQL Hashing Program for High Earner Identification

*SQL, Hashing Algorithms*

Designed a program to analyze over 1,000 employee records, using SQL and hashing algorithms to identify high earners by ID, name, salary, and department.

### Budget tracker personal project

*Python, SQL, HTML, CSS, JavaScript*

*Created a full-stack budget tracking website to manage personal finances, combining front-end and back-end expertise. Developed using Python for backend processing and SQL for data storage, with a responsive front-end built using HTML, CSS, and JavaScript. The website allows users to categorize, track, and analyze spending, addressing a personal need to monitor expenses more effectively.*

## Experience

### Volunteer with CAT

*Portland State University*

Developed and engaged in educational and interactive activities featuring a virtual cat companion, enhancing user experiences through innovative projects.

Volunteer with Salama community center

Beaverton muslim community

Developed website for them

CODE PDX

Developed and helped with its projects.

## SKILLS

Proficient in coding C++, python, c Assembly, SQL, java, javascript, algorithm run time, html, css, git, NLP, microsoft office full stack, front end, back end

## Award

Global studies award in community college

## LANGUAGES

Primary English and somali  
Secondary arabic

## Classes

### CS161: Introduction to Programming (Python)

Basics of programming, problem-solving, and algorithmic thinking using Python.

### CS162: Introduction to Computer Science

Fundamental concepts of computer science, including data manipulation and basic programming structures.

### CS163: Data Structures

In-depth study of data structures including hash tables, linked lists (singly and doubly), and trees.

### CS205: System Programming

Explored system-level programming with a focus on x86 assembly, debugging, and low-level operations.

### CS250 & CS251: Discrete Mathematics

Covered essential discrete math topics for computer science, including logic, set theory, and combinatorics.

### CS302: Programming Methodologies

Advanced problem-solving and software development in C++ and Python, focusing on code optimization and debugging.

## EDUCATION

### **Portland community college — *transfer***

September 2020 - january 2023

Earned a associate degree in computer information and a transfer

### **Portland state university ,downtown portland —computer science- software engineering**

January 2023 - current

I am pursuing a computer science degree with a minor in math

#### **CS314: Elements of Software Engineering**

Studied software development life cycles, project management, and best practices in large-scale software projects.

#### **CS333: Introduction to Operating Systems**

Fundamentals of operating system design, including process management, memory, and file systems.

#### **CS350: Algorithms and Complexity**

Focused on algorithm design and analysis, recursion, dynamic programming, and complexity theory.

#### **Other Courses:**

- **Artificial Intelligence & Machine Learning**
- **Web Development**
- **Code quality review**