

Ethan Randolph Dibble

King City, Oregon — edibble@pdx.edu — 503-893-0362

gitlab.cecs.pdx.edu/edibble — github.com/edibblepdx — linkedin.com/in/ethan-dibble/

Motivated and driven student at Portland State University, actively pursuing a Bachelor of Science in Computer Science with a minor in Mathematics. Eager to leverage my passion for technology and problem-solving skills in a dynamic computer science internship. Seeking hands-on learning opportunities to further develop my expertise and contribute to innovative projects in a collaborative environment.

Education

Portland State University
Bachelor of Science in Computer Science
Minor in Mathematics
GPA 4.0 : President's list 2022 – present

2022 – Present
Expected 2026

Relevant Coursework: *Algorithms, Data structures, Operating Systems, Object Oriented Programming, Machine Learning, Computer Graphics, Calculus, Linear Algebra, Mathematical Analysis, MERN, Agile & Scrum, Technical Writing*

University of Oregon
Undergraduate
GPA 4.0 : President's list 2021 – 2022

2021 – 2022
Transfer

Tualatin Highschool 2018 – 2021
Regionally competed in Accounting and Marketing *Graduated*

Projects

MERN Stack Chat App: JavaScript, HTML, and CSS [MongoDB, Express.js, React.js, Node.js, Socket.io]
in collaboration with Andres Gutierrez Bravo

Utilizing a microservices architecture, our chat service provided realtime group chats utilizing WebSockets and our user service provided authentication and encryption using a RESTful API. Each service was deployed independently using Docker.

Music Genre Classification: Python and Flask

Research paper and website on music feature extraction using a CNN and comparison of SVM, DNN, and Naïve Bayes classifiers. The website takes .wav or .mp4 input and uses a CNN & SVM trained to 91.5% accuracy and outputs a spectrogram image and prediction label, written in python using Flask.

MNIST two-layer perceptron: Python

Image classification of handwritten digits 0-9. Written from scratch to compare different learning rates, momentum values, and number of hidden units on model accuracy. Best observed training accuracy of 98.31% and test accuracy of 95.64%.

Viktar; a tar clone: C

Creates uncompressed binary archives that may contain any file type. Has the ability to print contents, extract, and validate archives using a cyclic redundancy check. Tested using a bash script.

Mastermind/Wordle clone: C and x86-32 assembly

Used a hash map for the C implementation to sort 6 values 0-9a-f with the number of guesses taken as a command line argument. Feedback was given in constant time and a score given based on the number of remaining rounds at game end.

Game Collection: C++

Maintain a collection of Games stored in a single Red-Black tree implemented with smart pointers. The data was a Base class Game pointer. RTTI is used to allocate new memory and use the write review method in the Videogame derived class.

Text-Based Adventure Game: Python

Built as a modular set of rooms as data collections, each with a set of exits and a binary tree filled with npc and item information. Commands were Verb-Object-(Noun) Statements. And the game content could be changed without extra code.

Love Raycaster: Lua and Love2d

Rendering of a 2D grid-based environment in 3D using the DDA (Digital Differential Analyzer) algorithm to draw vertical line segments on the screen. Plans to implement collision, texturing, and a gameplay loop like Wolfenstein 3D.

Love BlackJack and Riichi Mahjong: Lua and Love2d

Graphical implementations of BlackJack and Riichi Mahjong in the love2d game engine.

Technical Skills

Programming: C, C++, Python, JavaScript, Assembly, Bash, SQL, Lua
Operating Systems: Windows, Linux (Ubuntu, Ubuntu Server, Fedora Workstation)
Version Control: Git, Gitlab & Github
Markup: L^AT_EX, HTML, CSS, Markdown
Tools: MS Office, JetBrains, VS Code, Vim, Tmux, Docker

Other Skills and Interests

Language: Spanish (OR Seal of Biliteracy – 6yrs), Japanese (Elementary – 1yr)
Soft Skills: Communication, Product Development, Agile/Scrum
Associations: YEBW Alumni, FBLA Club, International Baccalaureate
Hobbies: Climbing & Biking

Awards and Extracurricular

YEBW Business Week Winning Team 2019: A week-long intensive summer course hosted at OSU and UO. Our team envisioned drawstring bed sheets as a product. We mapped its supply chain, and all other supporting aspects, then pitched the product to the other students and investors.

FBLA Club; top ranking in region for Accounting and Marketing: Participated in extracurricular regional testing and placed in the top few for marketing while still being competitive in accounting.

American Chemical Society Chemistry Olympiad 2019: One of the International Science Olympiads that are held annually. Participation displays a commitment and passion to academia.

Job Experience

Panda Express

Summer 2023

Worked in the kitchen to provide food and clean dishes in a fast paced environment where team communication was paramount.

TuHS Barista and Accountant

2019 – 2020

Worked for the school cafe in and out of school hours; was part of the team that managed inventory, cash flow, and expenses.