

Khoa Ho he/him/his

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EDUCATION

University of Massachusetts Amherst | College of Information and Computer Sciences Exp. Graduation: May 2025
B.S. in Computer Science GPA: 3.9
Coursework: Software Engineering, Algorithms, Programming Methodology, Machine Learning, Computer Architecture

PROJECTS

Undergraduate Research Volunteer Program June – Sep 2023
Garbage Classification Online

- Assessed current system of waste categorization and proposed an ML model that facilitates improved waste management
- Developed a Convolutional Neural Network for classifying recycled, organic, and miscellaneous waste using ResNet-50 and transfer learning
- Optimized with AdamW and learning rate scheduler- the model achieved an accuracy of 97.6% on the training set, 95.23% on the testing set, and 94.8% on the validation set

Project Clue - Text-based murder mystery Sep 2022

- Designed a text-based murder mystery game using C language concepts enable a human player to navigate their avatar through the game board and solve a puzzle to find out the killer
- Employed structs to represent rooms, items, and avatars and linking them using pointers; utilized dynamic memory allocation to implement linked lists for items
- Achieved a well-structured and memory-efficient game, demonstrating proficiency in C programming

Recipe Management Website Sep 2023 - Now

- Recognized a common challenge of meal planning, designed a website for recipe management
- Utilized the MERN (MongoDB, Express.js, React, Node.js) stack to enable user authentication, recipe creation and saving
- Delivered a tool using full-stack web development in JavaScript

SKILLS

Programming Languages: C/C++, Python, Java, JavaScript/Typescript, Latex

Tools: GitHub, React, Node.js, Express.js, MongoDB, REST APIs, Numpy, Pytorch, Tensorflow

LEADERSHIP EXPERIENCE

The Palette Organization Co-founder Oct 2017 – Aug 2019

- Co-led, raised funds and secured sponsorships for educational programs on nutrition, hygiene, and literacy for orphaned children

The Libere Project Co-founder Oct 201 – Oct 2020

- Co-led and organized multiple events regarding online debates, art and writing competitions, workshops, talk shows... to raise awareness about sexual harassment and women's rights