

# DAI NGO TAN

ASPIRING SOFTWARE ENGINEER



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## PROJECT EXPERIENCE

October, 2021 -  
December, 2021

### AUCTION WEBSITE

- Participated in building an auction website through **Domain Driven Design**, using **Docker** containers
- Developed users microservice with **Flask & MySQL** and messages microservice with **RabbitMQ & MongoDB**
- Assisted with docker network setup & frontend design

August, 2021 -  
September, 2021

### NOTE SHARE

- Constructed a **client-server application** to transfer text files via **TCP/IP sockets**
- Performed **binary search** and **merge sort** for efficient searching and sorting of uploaded files
- Optimized application with **Huffman algorithm** to compress/decompress text files written in **Java**

April, 2021 -  
June, 2021

### RESERVATION MANAGEMENT SYSTEM BACKEND

- Collaborated on a backend reservation system written in **Python** with **FastAPI** based on **Agile principles**
- Provided all the required backend functionalities for **API endpoints** and ensured correctness with **pytest**
- Coordinated with group representatives to ensure all other systems can request resources from each other

January, 2021 -  
February, 2021

### BATTLESHIP GAME

- Built a solo player, 11x11 square sized, battleship game with 5 battleships written in **Python**
- Designed UI with **Pygame** and battleships with **Sprites**
- Implemented the **3-coloring strategy** for the computer to find the player's battleships

## EDUCATION

March, 2022

### MASTER OF SCIENCE IN COMPUTER SCIENCE THE UNIVERSITY OF CHICAGO

**RELEVANT COURSEWORKS:** Algorithms (& Data Structures), Databases, Networks, Distributed Systems, Advanced Python Programming, Web Development, Applied Software Engineering, Topics in Software Engineering

August, 2019

### BACHELOR OF SCIENCE IN ECONOMICS UNIVERSITY OF WASHINGTON

**RELEVANT COURSEWORK:** Database and Data Modelling

## LANGUAGES

PYTHON 3 ● ● ● ● ●

JAVA 8 ● ● ● ○ ○

HTML 5 ● ● ● ○ ○

CSS 3 ● ● ● ○ ○

JAVASCRIPT ● ● ● ○ ○

SQL ● ● ● ● ●

PHP ● ○ ○ ○ ○

R ● ○ ○ ○ ○

## TECHNICAL SKILLS

**OPERATING SYSTEMS:** LINUX, WINDOWS

**VERSION CONTROLS:** GIT, SUBVERSION

**DATABASES:** SQLITE, MYSQL, POSTGRESQL, MONGODB

**FRAMEWORKS:** FLASK, FASTAPI, RABBITMQ, AGILE METHODOLOGY, DOMAIN-DRIVEN DESIGN, MICROSERVICES, OOP, RESTFUL API

**TOOLS:** DOCKER, WIRESHARK, JIRA, VIM, GITHUB, GITLAB, INTELLIJ IDEA, VSCODE

## HACKATHONS

### IMC 64 BIDS CODING CHALLENGE

- Implemented algorithms for common financial trading problems in **Java**
- Advanced to the final round, leaving around **1,200** participants behind
- Link:** careers.imc.com/eu/en/64bids-coding-challenge

### UNCOMMON HACKS 2021

- Jointly created a covid-19 themed, 2-D side-scrolling game in **Python (Pygame)**
- Link:** devpost.com/software/koronakiller