
Duy Khanh Andrew Ha

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SUMMARY

Sophomore Computer Science student with experience in programming and web development and a passion for software development and data structures seeking an Internship opportunity to broaden knowledge of computer science for summer 2025.

EDUCATION

University of Houston, Natural Science and Mathematics - Houston, Texas

Expected Graduation: May 2026

Bachelor of Science in Computer Science

RELEVANT COURSEWORK: Algorithms and Data Structures, Data Science, Automata and Computability, Operating Systems

PROJECTS

Stock Price Prediction

- Built a stock price prediction model for the S&P 500 index using historical data, focusing on avoiding overfitting and ensuring real-world applicability.
- Collected and preprocessed financial data using **Python** and **pandas**, preparing it for machine learning applications.
- Trained a Random Forest machine learning model to predict future S&P 500 prices, applying backtesting techniques to evaluate model performance and ensure robustness with a **53% accuracy**.

Blackjack Game

- Developed an interactive Blackjack game using **JavaScript**, **HTML**, and **CSS**, implementing core game logic including card dealing, player actions (hit, stand), and dealer AI.
- Implemented game mechanics such as card dealing, scoring, and dealer AI, enhancing problem-solving and algorithmic thinking skills.
- Utilized DOM manipulation to create a dynamic user interface with real-time updates of player cards, dealer cards, and game status (win/lose/draw).

ASCII Webcam and Image Converter

- Developed an image converter that transforms webcam feeds and static images into ASCII art using **JavaScript** and **CSS**, showcasing the use of text-based rendering techniques.
- Implemented real-time image processing by capturing webcam input, converting pixel data to ASCII characters, and displaying the output in the browser dynamically.

Flappy Bird Clone

- Created a Flappy Bird game clone using **JavaScript**, **HTML**, and **CSS**, focusing on replicating physics-based mechanics and user interaction.
- Implemented game physics in JavaScript, simulating realistic bird movements with gravity and jump mechanics, while ensuring smooth transitions between frames.
- Implemented game elements such as collision detection, score tracking, and difficulty scaling.

WORK EXPERIENCE

Finishing Technician

CNC Prime Inc.

June 2022 – August 2022

Houston, Texas

- Performed detailed sanding and deburring of metal to ensure smooth surfaces and proper fit and finish.
- Collaborated with team members and supervisors to meet production deadlines.
- Inspected parts using precision measuring instruments to verify dimensional accuracy and surface quality.
- Interpreted blueprints and CAD drawings to ensure adherence to design specifications during finishing.

SKILLS

Software Skills: C++, Java, HTML/CSS, JavaScript, Python,

Languages: English, Vietnamese

AWARDS

UH Academic Excellence Scholarship

2023 – 2027