Dylan Cao

dylanhoangcao@gmail.com | portfolio-website/dylanhoangcao
github/caoboyeehaw | 832.350.4520 | linkedin/dylanhoangcao

EDUCATION

UNIVERSITY OF HOUSTON

BS in Computer Science
Minor in Mathematics
Class of 2023

SKILLS

PROGRAMMING

Experienced:
Java • TypeScript

Competent:
Python3 • JavaScript
C# • HTML5 • CSS3

Familiar:
C++ • MSSQL • MySQL

TECHNOLOGIES

Web Development Tools:
React • Bootstrap
Node.js • Next.js

Back-End Development Tools:
MongoDB Atlas • Prisma
Azure Cosmos DB • Redis

Cloud Compute Services:
Vercel • ngrok • S3 • Route53
Google Colab • Jupyter Notebook

Data Science Tools:
Matplotlib • Pandas • Seaborn

Software Development Tools:
Git Bash • Visual Studio Code
Source Tree • GitHub Desktop

COURSEWORK

Fundamentals:
Computer Architectures
Programming and Data Structures
Automata and Computability
Algorithms and Data Structures
Database Management Systems
Operating Systems
Software Design

Electives:
Computer Vision and Medical Imaging
Introduction to Data Science
Data Science and Statistical Learning
Introduction to Game Development

TECHNICAL PROJECTS

COUGAR SUPPLY DEN | Full Stack Point-Of-Sale Website

March 2023 - April 2023 | Houston, TX

- Built a point-of-sale web application that facilitates real-time Customer-Admin interactions for an inventory of over 2000 unique products, hosted on Vercel and backed by a Microsoft Azure MSSQL database.
- Engineered end-to-end e-commerce features, allowing customers to browse, add to cart, and make purchases, while admins manage inventory via CRUD operations of which, can support up to 200 daily active users.
- Leverage a tech stack including Node.js, Next.js, and multiple front-end libraries, ensuring high performance and scalable codebase.
- Managed a team of 6 developers, overseeing code merges and maintaining a streamlined development pipeline.
- Instituted a robust authentication system with role-based access control, enhancing platform security and user management.

FUEL PRICE INSIGHTS | Full Stack Quote-Provider Website

June 2023 - July 2023 | Houston, TX

- Developed a full-stack CRUD app that handles user input requests which calculates into fuel quote forms stored in a database that can be sorted by date.
- Implemented user authentication using OAuth. Web tokens are also stored on the client to ensure appropriate user management.
- Utilized Prisma, MongoDB Atlas, and SWR to fetch data from user inputs, and manipulate data in the database via CRUD protocols.
- Features calculated fuel history specific to certain users.
- Developed using Next.js, Node.js, and various react libraries all within the VSCode Environment.
- Organised proper development practices regarding version control where merges and pull requests were handled among 3 teammates.

MACHINE LEARNED ARTIST | AI-Trained Art Generator

February 2022 - April 2022 | Houston, TX

- Hosted a public web application using Ngrok which allows visitors to transfer art styles from input photos using machine learning methods.
- Utilized VGG-19 machine-learning model to orchestrate at least 512 input files into an output that produces the neural-style transfer art.
- Implemented a trained model to compare a maximum of 1024 output images.
- Developed on cloud development environment services, Google Colab and Jupyter Notebooks.

HEMO: FIRST BLOOD | Top-Down Shooter Unity Game

September 2021 - December 2021 | Houston, TX

- Worked with a team of 6 members to create a 2D Unity Game that incorporates dynamic staging through player advancements.
- Developed a scaled difficulty system that spawns more enemies based on 24 primary progressive parameters.
- Implemented a user-interface of 200+ UI elements using Aesprite and Adobe Lightroom, simplifying the overall user experience.
- Developed an 8-directional sprite format for 30 characters, creating a more intuitive mechanic for optimized gameplay.
- Optimized path-finding for many objects, increasing frame rates by 70%.