# **Benjamin Truong**

## Education

## **University of Houston**

Jan 2023 - Dec 2023

Bachelors in Computer Science | Math Minor | GPA: 3.75

# **Work Experience**

## TRC Companies | Digital Intern

May 2023 - Aug 2023

- Engineered **Python** scripts automating **Excel** data, ensuring efficient conversion into deliverable files, streamlining operations.
- Leveraged **PowerBI** for insightful modeling of raw **Excel** data, enabling robust analysis and visualization for informed decision-making.
- Contributed to data integrity by meticulously identifying anomalies, inconsistencies, and errors in **Excel**, fortifying accuracy.

# **Projects**

# Medical Clinic Database Web Application

- Launched the development of a comprehensive web-based medical clinic database application, hosted and maintained on **Microsoft Azure**, ensuring secure and reliable access for users.
- Designed and implemented a user-friendly front-end interface, leveraging **JavaScript**, **HTML**, and **CSS** to create an intuitive and visually appealing platform for seamless user interaction and navigation.
- Engineered the back-end functionality using **PHP** and **MySQL**, integrating critical features like appointment scheduling, payment processing, and user data management. Ensured efficient and secure data handling for enhanced user experience.
- Collaborated within a development team to design, develop, and share the project's codebase using **GitHub**, facilitating seamless teamwork, version control, and continuous improvements throughout the project lifecycle.

## **CT Scan Simulation**

- Produced a function CT scan simulation using **Python**, simulating image slicing in horizontal, vertical, and diagonal orientations, coupled with comprehensive image reconstruction on a generated "virtual phantom".
- Proactively collaborated as part of a 4-member team of undergraduates spearheading the implementation and refinement of the system.
- Engineered a novel method for virtual CT scanning, employing an exclusive algebraic approach. This innovation facilitated exact image segmentation, resulting in superior-quality scans, showcasing a strong aptitude for developing advanced imaging techniques.

## **Coding Simulator**

- Created "Coding Simulator," a dynamic clicking game using **HTML**, **CSS**, and **JavaScript**. Demonstrated expertise in front-end development, focusing on user experience optimization and engaging interface design.
- Integrated a public **REST API** to inject humor and jokes into the game, fostering user engagement and adding a unique and lighthearted dimension to the gameplay experience.
- Leveraged **HTML** and **CSS** skills to craft an intuitive and visually appealing game interface. Ensured a user-friendly design that enhanced user interaction and facilitated an immersive gaming experience.
- Utilized **JavaScript** to implement and refine core game mechanics and user interactions. Showcased proficiency in JavaScript programming to create an interactive and engaging gaming environment while optimizing performance.

### Video Game Analysis

- Spearheaded a data science project leveraging **R** and **RStudio** tools to analyze a comprehensive video game sales dataset. Utilized KNN and SVM learning techniques to delve into 6,900 cases and 17 unique variables, unraveling insights into successful video game elements.
- Anticipated uncovering intriguing patterns and narratives within the dataset to engage gaming enthusiasts and contribute to a broader understanding of successful game dynamics in the dynamic and evolving gaming industry.
- Methodically characterized 17 distinct variables, including game titles, platforms, release years, genres, and intricate genre factors. Merged regional sales data from North America, the European Union, and Japan.

#### **Technical Skills**