Chia Hao Hsu Tai (David)

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EDUCATION

Northeastern University **Boston, MA**

- Candidate for a Bachelor of Science in Computer Science and Mathematics. Sept. 2020 – May 2024
- Candidate for a Minor in Industrial Engineering. GPA – 3.98/4.00
- Relevant Coursework: Object Oriented Design, Database Design, Algorithms and Data Structures, Artificial Intelligence, Matrix Methods for Machine Learning, Logic and Computation, Fundamentals of Computer Science.
- Honors: Dean's List (all semesters since admission).

EXPERIENCE

John Hancock/Manulife III Investment Management **Boston, MA**
Data Science and Advanced Analytics Intern Jul 2023 – Present

- Produced a computer vision algorithm to classify and locate distinct information segments in PDF files.
- Integrated a computer vision algorithm to an existing data extraction pipeline eliminating common sources of errors.
- Re-design and debugged a data extraction pipeline resulting in the reduction of pipeline failures.

John Hancock/Manulife III Investment Management **Boston, MA**
Data Science Intern Jul 2022 – Dec 2022

- Automated the data extraction pipeline for several web-based resources resulting in an 83% increase in efficiency and possible reductions in company costs.
- Created a flexible data extraction tool to optimize the data retrieval process for several marketing materials allowing the analytics team to accelerate the production of the new marketing database.
- Redesigned and optimized a series of SQL queries leading to a 39% reduction of computer processing time.

PROJECTS

Pedestrian Detection – Python Mar – May 2023

- Created a pedestrian detection software used to classify and localize pedestrians in an image.
- Experimented with different computer vision algorithms for object detection and selected a candidate that the team could replicate.
- Implemented the CenterNet algorithm for anchorless localization and classification of pedestrian in an image.

Animator – Java Mar – May 2022

- Utilized the MVC design pattern to create a motion picture application that reads and displays animations submitted by a user.
- Constructed a graphical user interface allowing the user to interact with any running animation.
- Simplified the addition of new features to the existing application by implementing a visitor design pattern.

European Soccer – SQL, Java Oct – Nov 2021

- Constructed a relational database that stores data for different European soccer leagues, players, matches and coaches.
- Simplified the maintenance of the database by introducing a series of automated triggers.
- Developed a front-end Java application allowing users to view and manage the database.
- Introduced application side data validation steps to reduce database errors and data inconsistencies.

LEADERSHIP

NEU Culture and Language Learning Society **Boston, MA**
Advanced Spanish Language Ambassador Sept – Dec 2021

- Co-hosted guided advanced Spanish language learning session for Northeastern students.
- Produced a flexible weekly learning schedule to target specific learning goals and topics.
- Encouraged an active learning environment by creating a series of interactive learning challenges and exercises.

SKILLS & INTEREST

Technical: Python, Java, SQL, HTML, CSS, JavaScript.
Tools: PyTorch, TensorFlow.
Spoken Languages: Spanish (native), English (fluent), Chinese (beginner).
Interest: Soccer, Olympic Weightlifting, Volleyball, Running, Programming.