Xuan Duc Tran

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EDUCATION

University of Illinois at Chicago (UIC) - GPA: 4.00   Chicago, IL
Bachelor of Science in Computer Science - Human Centered Computing Concentration   *Expected May 2026*
Relevant Coursework: Data Structures and Algorithms, Database Design, Software Design, UI/UX Design, Computer Design, Machine Learning, Calculus, Linear Algebra, Probability and Statistics

WORK EXPERIENCES

Data Science Intern   June 2024 - August 2024
FPT Software Corporation   *Hanoi, Vietnam*
- Collaborated on building neural network and applying computer vision techniques to **20,000** housing blueprint images, aiming to develop an industrial product for scanning symbols in architectural designs
- Utilized **Python** and **Django** to load images in JSON format into **PostgreSQL** database for retrieving data and enhancing efficiency in neural network training
- Applied **YOLO** (You Only Look Once) **Convolutional Neural Network (CNN)** to automate and enhance detection of symbols in housing blueprints

Data Science Research Fellow   June 2023 - May 2024
Bioinformatics Laboratory - The Marshall Lab - UIC   *Chicago, IL*
- Utilized **Python** and **R** computing languages to analyze biological sequence data, aiming to research gut microbiomes and its impact on athletic performance
- Conducted statistical analysis on data, generated models of analysis and explored machine learning application in biology using **Keras, NumPy, Pandas, Tensorflow**
- Implemented **Recurrent Neural Network (RNN)** to process bioinformatics data from **13,500+** microbiomes, accurately predicting microbial communities over time

PROJECTS

Invisible Woman in Healthcare | *Python, TypeScript, Flask, React, HTML, CSS*   Aug 2024
- Directed team in development of web application using **TypeScript**, **React**, **HTML**, **CSS** for front-end design, and **Flask**, **Python** for back-end processing to analyze gender bias in healthcare research papers
- Implemented bias detection using natural language processing and machine learning (**Scikit-learn**, **PyTorch**, **Tensorflow**), focusing on pronoun frequency, author gender counts, and participant gender representation
- Presented project at MIT hackathon, using **Matplotlib** and **Seaborn** for interactive data visualization and reports that received positive feedback

Air Pollution Analysis | *Python, Numpy, Pandas, SQL, Tableau*   Feb 2024
- Processed and analyzed hourly air pollution measurements in Seoul using **ETL (Extract, Transform, Load)** methods with **Python**, **NumPy**, and **Pandas** to produce data for environmental analysis
- Utilized **SQL** for data extraction and querying, enabling efficient handling of large datasets
- Built interactive dashboards in **Tableau** to visualize air pollution trends and measurement statuses

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, Java, R, SQL
Other Languages: Git, Unix/Linux, Visual Studio Code, Jupyter Notebook, RStudio
Web Frameworks/Data Visualization: HTML/CSS, React, Node.js, MongoDB, Tableau, PowerBi, Matplotlib
Data Analysis - Machine Learning: PostgreSQL, Django, Pandas, NumPy, Scikit-learn, Tensorflow, Keras, PyTorch, Classfication/Regression Techniques, Neural Network (CNN, RNN)

ACTIVITIES

Google Developer Students Club - UIC | *Member*   Aug 2023 - Now
- Engage in software development projects, attend Google workshops, and support community events

UIC Archery Club | *Member*   Jan 2024 - Now
- Participate in UIC archery club, contributing to team training and assisting in organizing club events