# Hang Tran

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#### **EDUCATION**

**University of North Texas, BS. Computer Science, GPA: 3.7** Focus: Machine Learning

#### **TECHNICAL SKILLS**

**Software**: XCode | GitHub | VS Code | Power BI | Tableau | Microsoft office Suite | Google Colab | Jupyter Notebook. **Programming Languages:** Python | C/C++ | Java | SQL | HTML/CSS | JavaScript | Matlab. **Package:** TensorFlow | PyTorch | Keras | Open CV

#### **EMPLOYMENT EXPERIENCE**

Instructional Assistant, UNT Computer Science and Engineering Department, Denton, TX Jan 2024 - Present

- Support the CSCE 5320-Scientific Data Visualization class, catering 77 students.
- Guide students through complex data visualization tasks leveraging Tableau, Power BI, and Python, significantly enhancing their capability to interpret and present intricate datasets visually.

**Research Assistant,** UNT Computer Science and Engineering Department, Denton, TX Jan 2023 – Present

- Specialize in the exploration and implementation of Deep Learning Network architectures, emphasizing on Convolutional Neural Networks (CNNs) for Microstructure Image detection.
- Enhanced microstructure image detection with deep learning with advanced data preprocessing and analysis on complex dataset, in collaboration with a PhD candidate.
- Engage in Vehicle Edge Computing Lab research since August 2023, focusing on advancing deep learning and transfer learning for autonomous vehicles.
- Collaborate on editing and preparing manuscripts, integrating the latest deep learning developments for publication in renowned journals.

## Certified CSCE Supplemental Instruction Leader, UNT Learning Center, Denton, Texas Aug 2022 – Dec 2023

- Received positive feedback from 5 students attending SI sessions for creating an engaging and supportive learning environment.
- Led 3 weekly study sessions in C++, fostering deep comprehension and exam preparation for CSCE I students.
- Developed interactive learning activities, effectively aligning with faculty and coordinator for data-driven feedback.

## **ENGINEERING PROJECTS**

Color Accessibility App - JavaScript, HTML/CSS, Python, Django, Next.js, Google Colab Sep 2023 – Present

- Train and integrate the ANN Color Classifier model into the Django framework, achieving results with an 89% accuracy rate on the training set and maintaining 87% accuracy on the test set.
- Performed comparative analysis on machine learning algorithms, including ANN, Decision Tree and Random Forest, to identify the optimal model for the app, showcasing strategic model selection and data fine-tuning skills.

## Digit Recognizer – Python, JupyterNotebook

- Demonstrated model performance with an accuracy rate of 92% on both the training and test datasets.
- Designed and meticulously optimized a foundational neural network entirely from scratch to effectively recognize handwritten digits within the MNIST dataset.

## Fitness Tracker – JavaScript, HTML/CSS, TailwindCSS, Node.js

- Architected and crafted the foundational components, including the main frame, dashboard, and user information page utilizing React with TailwindCSS package to ensure an intuitive and visually appealing user experience.
- Collaborated with a cross-functional team of three members, adopting Agile methodologies to streamline development processes and enhance project efficiency.

## Sell Smart – AI Real Estate Web - JavaScript, HTML/CSS, Python, React, Django

- Managed substantial dataset, involving up to 5,000 data points, for training and fine-tuning the predictive models.
- Implemented Decision Tree models within the website's framework to provide accurate predictions for property selling prices within specified timeframes, as well as the inverse scenario.
- Developed, tested, and successful deployed the project, ensuring its functionality and reliability.

Expected Graduation: May 2024

Jan – May 2023

July 2023

June 2023

 Zhaochen Gu, Hang Tran, Aishwarya Manjunath, Donger Chen and Song Fu\*. AI Automated Microstructure Analysis for Intelligent Manufacturing. On Journ of Robotics & Autom. 2(2): 2023. OJRAT.MS.ID.000533. DOI: 10.33552/OJRAT.2023.02.000533.