

# TRAN XUAN LOC

## Data Engineer Fresher

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🏠 Loc Tran   🔄 Loc Tran   📄 Loc Tran

### EDUCATION

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#### The Bachelor of Science

University of Science

• **GPA:** 3.72

• **Achievement:**

- Submit two papers in the Knowledge Graph field.

07/2018 – present

Ho Chi Minh,

VietNam

### WORK EXPERIENCE

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#### Research Assistant

Computer Science Laboratory, HCMUS

06/2021 – 06/2022

• **Responsibilities**

- Read and summarize all research directions in Knowledge Graphs.
- Report and discuss the related articles with our team each week.
- Study the advantages and disadvantages of existing methods for further improvement.
- Integrating the advantages and analyzing drawbacks of different techniques to propose a new method.

• **Technologies:**

- Pytorch, GCNs, GAT, Knowledge Graph, CNNs, Quaternion, Tensor Decomposition.

### PROJECTS

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#### Age and Gender Prediction

- Organize and preprocess image data.
- Construct the Alexnet architecture to predict age and gender of a target image.
- Techniques: Data Augmentation, Facial Alignment and Facial Landmark Detection.
- Role: Leader, Developer.

#### Spark Machine Learning 🔗

- Conduct EDA and ETL using SparkSQL on Python.
- Using SparkML library to conduct classification algorithms.
- Role: Developer.

#### Spark and Hadoop Coding 🔗

- Analyze data by SQL and solving problems using SparkSQL on Python.
- Implement MapReduce for each problem.
- Role: Leader, Developer.

#### Food Texture Analysis 🔗

- Perform data cleaning using Python.
- Using PCA to transform data into low-dimensional space.
- Discover the meaning of value in each eigenvector(s) by visualizing them.
- Role: Leader, Developer.

#### Weather Prediction 🔗

- Crawling data from API.
- Performing EDA, data cleaning, then solving the unbalanced problem.
- Using by Multi-layer Perceptron and Support Vector Machine model to predict weather.
- Role: Developer.

#### House Price Analysis 🔗

- Perform data cleaning by insight from EDA.
- Analyzing and visualizing data on Python.
- Construct the architecture of model based on self-research.
- Obtain the 125th position on Kaggle competition.
- Role: Leader, Developer

## StackOverFlow Exploration

- Perform EDA and ETL on StackOverFlow's survey data using Pandas on Python.
- Analyzing and visualize data for answering the target questions using Python.
- Role: Developer.

## Emotion Recognition

- Organize and perform data cleaning on image data.
- Implementing the VGG-like and VGG-19 to recognize emotion.
- Techniques: AMP, Adam8bit, HaarCasscade, Data Augmentation.
- Real time testing: Camera, video, static images.
- Role: Leader, Developer.

## Data Analyst with Tableau and MSSQL server

- Perform EDA and ETL using SQL on MSSQL server with Covid data.
- Visualize Covid data by using Tableau.
- Perform data cleaning by SQL on MSSQL server with Nashville Housing Data.
- Role: Developer.

## TECHNIQUE SKILLS

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### Have a basic knowledge about:

- OOP, Data Structure
- Image Preprocessing, Machine Learning and Deep Learning.

### Programming languages

Python, C++

### Web Scrapping, Crawling data from API

- Extract raw data using BeautifulSoup, Selenium, and Regex.
- Analyze and organize raw data.

### Perform ETL, conduct complex data analysis and report on results

- Interpret trends and patterns using Tableau, Python
- Using Python, MSSQL server, and Spark to perform ETL and EDA.

### Prepare data for prescriptive and predictive modeling

### Design machine learning model

### Research and implement appropriate ML algorithms.

### Run machine learning tests and experiments

### Select appropriate datasets and data representation methods

### Perform statistical analysis and fine-tuning using test results

## SOFT SKILLS

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|----------------------|--|-------------------|
| • Good Communication | • Problem solving                              | • Time management |
| • Teamwork           | • Have ability to explore and research problem | • Leadership      |

## PUBLICATIONS

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### Integrating Quaternion Graph Convolution Networks with Tucker Decomposition for Link Prediction on Knowledge Graphs

19/07/2022

Thanh Le, Chi Tran, Loc Tran and Bac Le

### A Novel Integrating Approach Between Graph Neural Networks and Complex Representation for Link Prediction on Knowledge Graphs

28/11/2022

Thanh Le, Loc Tran and Bac Le

## LANGUAGES

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### English

IELTS 5.5

## INTERESTS

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Camping, Reading, Gaming, Badminton.