

# TRAN XUAN LOC

## Data Engineer Fresher

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in Loc Tran 🏠 Loc Tran 🗣 Loc Tran 📄 Loc Tran

### Education

07/2018 – present **The Bachelor of Science, University of Science** Ho Chi Minh, VietNam

- **GPA:** 3.70
- **Achievement:**
  - Submit two papers in the Knowledge Graph field.

### Work Experience

06/2021 – 06/2022 **Research Assistant, Computer Science Laboratory, HCMUS**

- **Responsibilities**
  - Read and summarize all research directions in Knowledge Graph.
  - 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

01/2021 **Age and Gender Prediction**

- Using Adience dataset and implementing the Alexnet architecture to predict age and gender.
- Techniques: BN, Dropout, Data Augmentation, Facial Alignment and Facial Landmark Detection.

05/2021 **Spark and Hadoop Coding** 🔗

- Using SparkSQL to query and answer the questions.
- Implement MapReduce for each problem.
- Libraries: PySpark, SparkSQL, Hadoop.

05/2021 **Spark Machine Learning** 🔗

- Load data by spark, and preprocess them by sparkSQL.
- Using SparkML library to conduct classification algorithms including NaiveBayes, Decision Tree, Logistic Regression, LinearSVC.
- Libraries: SparkML, SparkSQL.

08/2021 **Food Texture Analysis** 🔗

- Explore and preprocess data based on its distribution.
- Using PCA to transform data into low-dimensional space.
- Discover the meaning of value in each eigenvector(s) by visualizing them.
- Libraries: Pandas, Numpy.

08/2021

### Weather Prediction [↗](#)

- Crawl data From API provided by Ambee with self-defined format.
- Explore and preprocess data, then solve the unbalanced problem by sampling techniques.
- Predict weather by MLP and SVM model.
- Libraries: Pandas, Scikit-learn, Numpy.

12/2021

### House Price Analysis [↗](#)

- Explore the features, then preprocess step by step.
- Extracting and visualizing data to answer the questions.
- Predict new house price by stacking models.
- Libraries: Pandas, Scikit-learn, Numpy, Xgboost.

05/2022

### Emotion Recognition [↗](#)

- Using FER2013 dataset and implementing the VGG-like and VGG-19 network for recognize emotions.
- Techniques: AMP, Adam8bit, HaarCasscade, Data Augmentation.
- Real time testing: Camera, video, static images.
- Libraries: Pytorch, Keras.

## Technique Skills

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### Python

Numpy, Pandas, SciKit-Learn, Pytorch

● ● ● ● ●

### Others

Anaconda, Git, SSH, Docker

● ● ● ● ●

### Data ingestion

Divolte collector, API crawl, ELK

● ● ● ● ●

### Transfer data

Spark, Kafka

● ● ● ● ●

### ETL transform

OpenCV, Spark, python

● ● ● ● ●

### Data lake

Hadoop, CouchDB

● ● ● ● ●

### Data warehouse, mart

CouchDB, MSSQL Server.

● ● ● ● ●

### Distributed query

SparkSQL

● ● ● ● ●

### AI

Keras, Pytorch, SparkML

● ● ● ● ●

## Publications

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19/07/2022

**Integrating Quaternion Graph Convolution Networks with Tucker Decomposition for Link Prediction on Knowledge Graphs,**  
*Thanh Le, Chi Tran, Loc Tran and Bac Le* [↗](#)

28/11/2022

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