# Khanh Duong TRAN

Data Scientist Intern | Île-de-France



ravdiwill





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### **SUMMARY**

A "Two-for-one" hire with expertise as both Data scientist and ML (Machine learning) engineer, able to handle both job types. Open-minded, results-driven, and business-centric, with experience in telecom (telecommunications) ML use cases. Bilingual in English with intermediate French understanding, eager to solve real-world problems.

# **PROJECTS**

#### BANKING CUSTOMERS CHURN PREDICTION

DATA SCIENTIST

**Objective**: To built and deploy ML models into production.

- → Conducted Exploratory Data Analysis on customer data.
- → Classified churners using tree-based classification models.
- → Utilised scikit-learn pipelines for efficient feature engineering.
- → Implemented feature selection based on feature importance to reduce training time, and feature generation to enhance model performance.
- → Applied SMOTE and class weight adjustments to tackle class imbalance.
- → Implemented Optuna for hyperparameter tuning across models for optimal performance.

#### CHURN PREDICTION ANALYTICS PLATFORM

| ML ENGINEER

**Objective:** Researched state-of-the-art deep learning models to develop a Minimum Viable Product for telecoms churn prediction.

- → Model Development: Implemented a hybrid ensemble DNN and BiLSTM model, Logged models metadata via MLflow.
- → Model Deployment: Deployed the model into a web application using FastAPI for real-time predictions.
- → Data Pipeline Inetegration: Integrated data quality validation using Great Expectations in production pipeline.
- → Process Automation: Automated model prediction tasks using Apache Airflow Docker image.
- → **Stakeholder Engagement:** Developed, presented interactive dashboards using Grafana and Streamlit to demonstrate model performance.

#### EXPERIENCE

#### **VIETTEL GROUP**

April 2022 - June 2022

ASSOCIATE DATA ANALYST | Hanoi, Vietnam

- → Analyzed telecoms customer usage data using SQL.
- → Assisted in reporting the ML applications' effectiveness in telecoms usecases.
- → Researched tree-based ML algorithms for customer churn predictions.

# SKILLS

#### **PROGRAMMING**

Proficient:

Python • SQL

Familiar:

R • Java • Shell Script • C/C++ • Javascript • HTML

#### LIBRARIES/FRAMEWORKS

Scikit-learn • Tensorflow • Numpy • Pandas • Polars • FastAPI • Optuna • Matplotlib • Streamlit

#### TOOLS/PLATFORMS

Docker • AWS • Git • GitHub • MongoDB • Apache Airflow • MLflow • MySQL • Grafana • Tableau Dataiku

#### OPERATING SYSTEM

Unix

#### **LANGUAGES**

- English (C1)
- French (B1)
- Vietnamese

#### SOFT

- Teamwork
- Problem solving
- Inquisitive
- Adaptability
- Autonomous

# **EDUCATION**

#### **EPITA**

M.S.C IN COMPUTER SCIENCE March 2023 - Present | Le Kremlin-Bicêtre

# INTERESTS

- Photography
- Guitar
- Cue sports