

# Dao Duy Dai

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## EDUCATION

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**Foreign Trade University** | *Class of 2024*

Ha Noi, Viet Nam

*Bachelor of Business in Japanese-Style International Business (JIB)*

High Distinction; GPA: 3.66/4.0

**WorldQuant University** | 2023

Online Program

*Applied Data Science Lab Program*

Aug. 2023 - Dec. 2023

- Completed eight end-to-end, applied Data Science projects, including Customer Segmentation, A/B Testing, Database Management, and ARIMA Time-series Model.

### Honors & Awards

- Score 29/30 (A department) in the National High School Graduation Exam 2020 with 10/10 in Math.
- Achieved dual valedictorian honors: Tuyen Quang province (2020) and JIB faculty entrance.

## WORK EXPERIENCE

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**Young Talent - EDA Division** | *VPBank*

Aug. 2024 - Present

- Served within the Business Intelligence Center, assisting the Operation Division in optimizing banking operations by deriving actionable insights from raw data using SQL Server and Excel, while managing ad-hoc reporting and manual client requests to support data-driven decision-making.
- Optimized SQL performance by refining regular SQL jobs and stored procedures; ensuring data quality and SLA compliance; automated workflows to integrate data from AWS Athena into the on-premise SQL Server.
- Developed and maintained Power BI dashboards to monitor key metrics such as TAT, volume, approval rate, etc., providing near-real-time operational visibility.
- Conducted data analysis using Python, applying visualizations and modeling techniques to address banking operation challenges, including credit card usage patterns, inactive customers, and 24/7 call center efficiency.
- Developed presentation skills by utilizing PowerPoint and Python visualizations to communicate actionable insights from raw data, supporting the Operation Division in optimizing banking operations.
- Actively participated in Young Talent initiatives, including the AWS Workshop, EDA Young Talent's Data Summit, and Coffee Talk with VPBank's CDO, to enhance technical expertise and professional development.

**Leader - Finalist** | *VPBank Hackathon*

June. 2024 - Jul. 2024

- Achieved finalist recognition in VPBank Hackathon, demonstrating expertise in data engineering and machine learning, contributing to securing a position in VPBank's Young Talent program.
- Engineered an automated AWS data pipeline (S3, RDS, Lambda) to optimize customer data analysis and marketing automation.
- Developed and deployed ML models in SageMaker for customer segmentation, CLV prediction, and personalized recommendations, integrating insights into Amazon Pinpoint for targeted marketing.
- Implemented sentiment analysis (Amazon Comprehend), chatbot interactions (Amazon Lex), and real-time dashboards (AWS QuickSight) to enhance customer engagement and performance monitoring.

**Data Scientist** | *Dagoras Technology and Communication JSC*

Jan. 2024 - May. 2024

- Participated in end-to-end data science projects, from client consultations and requirement gathering to deploying scalable ML solutions as APIs, ensuring efficient integration into client systems.
- Developed expertise in Python, SQL, Spark, and advanced ML techniques, enabling the deployment of scalable data solutions in the telecom sector.
- Processed large datasets using big data frameworks like Elasticsearch, HDFS, and Spark, enhancing analytical capabilities and optimizing data workflows.
- Applied machine learning concepts, including supervised, unsupervised learning, and recommendations engine, to create innovative solutions for business challenges.
- Collaborated cross-functionally with Data Analysis and other teams to transform raw data into actionable insights, driving strategic decision-making.

## FEATURED PROJECTS

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### **Crypto Trading Bot** | *Python, Docker, Bash, AWS*

- Developed a crypto trading bot using Python and Docker, implementing trading strategies in Python and deploying them within a containerized environment to ensure scalability and reliability.
- Designed a microservices-based architecture, incorporating features for machine learning, monitoring, security, and data visualization, while gaining expertise in optimizing servers, managing services, and working with various tech stacks.

### **Telecommunication Recommendation System** | *Python, Flask, PostgreSQL, Airflow*

- Implemented classification and collaborative filtering algorithms to accurately segment customers and generate personalized recommendations, showcasing the potential to enhance customer engagement.
- Designed and developed various benchmark models and multi-layered recommendation systems, facilitating comprehensive comparisons and optimized performance across different system layers.
- Integrated a complete recommendation algorithm, prepared a sophisticated deployable solution for client systems, and incorporated Airflow to manage and automate the data flow and machine learning workflows.

### **Predictive Whitelist Model** | *Python, Flask, PostgreSQL, Airflow*

- Enhanced and refined a tree-based predictive model, originally conceptualized by senior team members, achieving 90% accuracy in whitelist generation for telecom services.
- Managed full-cycle model development, from data preparation, algorithm optimization, and automating data workflows using Airflow to API deployment; utilized Python, Flask, and PostgreSQL.
- Designed and implemented a resilient API service, integrating predictive whitelist models into the client interface to enhance recommendation systems and improve targeting precision.

## SKILLS

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**Technical Skills:** Proficient in Python, SQL, and PySpark; Familiar with basic Git, Docker, Airflow, HDFS, ElasticSearch, and AWS Services

**Machine Learning:** Skilled in supervised and unsupervised learning, recommendation systems

**Soft Skills:** Exceptional problem-solving, analytical thinking, effective communication, and collaborative teamwork

**Languages:** Conversational proficiency in English, N3 proficiency in Japanese