

# Huy Doan

✉ quietjourney8888@gmail.com | 📞 +84 776 965 785  
🐙 github.com/huygg1004 | 🔗 linkedin.com/in/huy-doan-368194189/  
🌐 huy-portfolio-website.vercel.app | 📝 huydoan-blog.vercel.app

## Skills

**Languages:** Python, R, C#, JavaScript, TypeScript, SQL

**Cloud:** AWS (EC2, S3, DynamoDB, SQS, Redshift, Lambda, SageMaker AI)

**Data Visualization:** Tableau

**Libraries:** pandas, NumPy, scikit-learn, TensorFlow, PyTorch, Keras

**Frameworks:** React, Next.js, .NET

**Statistical Methods:** Hypothesis Testing, A/B Testing, Confidence Intervals, ANOVA, Chi-square, Regression Analysis

**Mathematics:** Probability Theory, Linear Algebra, Multivariable Calculus, Continuous Optimization

## Work Experience

**Independent SaaS Projects, Ho Chi Minh City**

April 2024 – Present

### Founder & Full-Stack AI Developer

- Led full lifecycle development of three AI-native SaaS applications—from ideation to deployment—focused on practical utility and monetization.
- Built multimodal emotion analysis models using PyTorch and BERT, and designed two RAG pipelines for PDF and email querying using LangChain, Pinecone, and OpenAI.
- Developed and deployed scalable full-stack apps using Next.js, React, TypeScript, and the T3 Stack, integrating AWS (S3, SageMaker), Stripe, and unified email APIs.
- Applied MLOps best practices by handling data imbalance, training ML models, and deploying inference endpoints on AWS SageMaker.
- Next.js, React, TypeScript, PyTorch, BERT, LangChain, Pinecone, OpenAI, AWS (S3, SageMaker), Stripe

**Tradelink Technology, Ho Chi Minh City**

May 2020 – Dec 2023

### Software Developer

- Developed user-friendly .NET web applications to streamline buyer transactions, automate tasks, and reduce manual work by 10 hours weekly, boosting operational efficiency.
- Optimized data processing with CRUD controllers and REST APIs supporting JSON, EDI, and XML formats using C and Python.
- Created and executed test plans that reduced defects by 30% through rigorous functional testing, improving product reliability and customer satisfaction.
- C#, .NET, Python, REST APIs, JSON, XML, EDI, MSSQL

**FPT Software, Ho Chi Minh City**

Jan 2022 – Aug 2022

### Business Analyst

- Developed and maintained enterprise solutions like Material Optimization Suite and Root Cause Analysis for GE Renewables, increasing productivity by 30% and reducing material waste by 20%.
- Defined 100+ clear user stories, improving development efficiency and cutting requirement-related errors by 25%.
- Facilitated Agile ceremonies and managed communication between clients and developers to ensure alignment and timely delivery.
- Agile, Scrum, Jira, Business Analysis, Requirement Gathering

**AQBooking.com Limited, Ho Chi Minh City**

July 2021 – Nov 2021

### .NET Developer

- Enhanced key features on a personalized travel platform, increasing user retention by 25% and booking conversions by 15%.
- Collaborated with international teams and partners to gather requirements, manage change requests, and provide software training.
- Reduced support inquiries by 50% and improved team productivity by 30% through proactive coordination and feature enhancements.
- C#, .NET, MSSQL, Angular, jQuery, Software Training

# Education

**Tampere University**, Tampere, Finland

Aug 2022 – Dec 2024

## Master's Degree in Data Science

*Relevant coursework:* Machine Learning Algorithms, Knowledge Mining and Big Data, Data-Intensive Programming, Fairness in Big Data Management, Regression Analysis, Neural Networks.

**Brigham Young University–Provo**, USA

Aug 2015 – Dec 2021

## Bachelor's Degree in Management Information Systems

*Relevant coursework:* Project Management and Systems Design, Database Systems, Enterprise Application Development, Business Programming, Machine Learning, Information Security and Controls.

# Personal Project Work

## • SHARE – Personalized Recipe Recommender

*Python, Pandas, Scikit-learn, OpenAI, Collaborative Filtering, Content-Based Filtering*

- Developed SHARE, an intelligent recipe recommendation system, as part of Master's thesis in Data Science at Tampere University.
- Designed a personalized meal planning experience by integrating collaborative filtering (user-item behavior) with content-based filtering (ingredients, cuisine type, cooking time).
- Incorporated health-aware, rule-based filtering (e.g., low-sodium, vegan, gluten-free) to align with users' dietary restrictions and goals.
- Engineered a dynamic weekly planner that adapts to users' nutritional objectives such as calorie control, macro balance, and meal variety.
- Leveraged GPT-3 to extract structured data and auto-generate recipe tags from unstructured user submissions and web-scraped entries—improving metadata coverage and searchability.
- Validated system usability and performance through extensive user testing, qualitative feedback, and satisfaction surveys to drive iterative improvements.

## • Chat with PDF – Intelligent Document Analysis SaaS

*Next.js, TypeScript, LangChain, Pinecone, OpenAI, AWS S3, Stripe, Vercel*

- Developed a full-stack SaaS platform that enables users to ask natural language questions about uploaded PDF files.
- Built a scalable RAG pipeline using LangChain for chaining prompts and retrieval, Pinecone for semantic vector storage, and OpenAI GPT-3.5-turbo for generating contextual answers.
- Implemented secure file upload and retrieval with AWS S3 and serverless functions, including streaming response rendering with Vercel AI SDK for instant feedback.
- Integrated Clerk for authentication and Stripe for subscription-based access, allowing differentiated access to premium features.
- Designed a responsive, intuitive user interface with React and Tailwind, ensuring mobile compatibility and polished UX.

## • Multimodal Video Emotion Analysis AI

*PyTorch, AWS SageMaker, ResNet3D, BERT, Conv1D, MELD Dataset*

- Built a multimodal sentiment classifier that takes video, audio, and transcript inputs to predict user emotion in movie dialogue.
- Extracted spatiotemporal features from video using ResNet3D; modeled textual sentiment with BERT embeddings; captured audio frequency features via custom 1D CNN architecture.
- Managed MLOps pipeline on AWS: data preprocessing with S3, GPU-based training on SageMaker, and live inference via SageMaker Endpoints.
- Handled class imbalance and poor label quality using weighted cross-entropy loss and label smoothing, achieving a 20% performance boost on validation accuracy.

## • Smart Inbox – AI-Powered Email Client

*Next.js, tRPC, Prisma, Tailwind, OpenAI, Orama, Aurinko API*

- Built a developer-focused email client inspired by Superhuman, offering AI-enhanced productivity features.
- Enabled email syncing and inbox parsing through Aurinko's unified email API, handling OAuth2, delta sync tokens, and webhooks.
- Created a “Smart Reply” and “Compose Assist” feature using OpenAI completions API with streaming output for real-time typing suggestions.
- Developed an RAG chatbot using Orama (local semantic search engine) that lets users ask questions based on the content of their inbox.
- Used tRPC and Prisma to maintain full-stack type safety and ensure high code maintainability and reduced bugs.