

ZARNI NWAY OO

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PROFILE

Business and Data Analytics professional with 6+ years of experience leading operations, building data-driven strategies, and scaling ventures across technology and agriculture sectors. Co-founded Myanmar's first digital bus ticketing platform and grew an agricultural machinery business unit from zero to ~\$10M revenue, applying market analysis, financial modelling, and structured decision-making throughout. Forbes 30 Under 30 Asia (2016). Currently pursuing MSc in Business Analytics at UCD Michael Smurfit Graduate Business School, building formal expertise in Python, SQL, machine learning, statistical methods, and optimisation. BSc (Hons) in Computer System Engineering (First Class Honours) provides a foundation in AI, data structures, and software development.

CAREER EXPERIENCE

Business Unit Head, IME International Co., Ltd., Yangon, Myanmar September 2016 - November 2019

Established and led the Agricultural Machinery Business Unit (imeinternational.com.mm) with executive-level responsibility for strategy, operations, and stakeholder engagement across a ~200-person nationwide operation spanning 12 locations.

- Directed nationwide market analysis by conducting **100+** farmer interviews and synthesising sales data, developing a data-driven market entry strategy that contributed to **~\$5M** first-year revenue.
- Scaled the business unit to **~\$10M** revenue by establishing **12** strategic sales and service networks, positioning YTO as Myanmar's leading Chinese tractor brand through data-backed distribution strategy.
- Coordinated cross-functional collaboration with international suppliers (China, Korea, Japan), local banking institutions, and government agencies, aligning multiple stakeholders around shared commercial objectives.
- Standardised operations through SOPs, structured reporting frameworks, and supplier coordination processes, reducing operational inconsistencies by **70%** across a distributed workforce.
- Developed feasibility studies and financial models in Excel translating raw data into actionable reports that supported investment decisions for senior leadership.
- Analysed sales trends, adoption patterns, and seasonal demand to produce structured reports guiding resource allocation and business planning priorities.
- Travelled internationally to evaluate suppliers across China, Korea, and Japan, conducting due diligence and securing exclusive distribution partnerships including YTO, Kioti Daedong (Korea), and Yanmar (Japan).
- Managed the full process from partner evaluation and contract negotiation to after-sales service deployment across all **12** nationwide locations.

Co-founder & COO, Ignite Technology Group, Yangon, Myanmar April 2013 - September 2016

Co-founded Myanmar's first intercity bus ticketing platform and held the COO role, leading operations across rollout, partner onboarding, and platform adoption. Transformed manual booking into a nationwide digital network. Forbes 30 Under 30 Asia (2016).

- Led the full product lifecycle from market research and requirements gathering through platform development, pilot testing, and nationwide rollout across **200+** retail partners.
- Conducted **200+** surveys and stakeholder interviews to build a data-driven market entry plan, achieving **60%** digital adoption within **6 months**.
- Secured partnerships with **3** major convenience store chains, multiple travel agencies, and a growing agent network, managing ongoing partner relationships and adoption.
- Oversaw technology rollout and trained **500+** partner staff across bus operators, retail chains, and travel agencies on the new digital platform, improving ticket distribution efficiency by **80%**.
- Designed investor-ready pitch materials including financial models, market forecasts, and growth scenarios, securing **\$200k** in funding.
- Built operational reporting systems using Excel to track sales performance, revenue trends, and partner activity, establishing a data-driven management approach from day one.

EDUCATION

MSc in Business Analytics (Current GPA: 3.8, First Class) September 2025 - September 2026

UCD Michael Smurfit Graduate Business School, Dublin, Ireland

Completed Modules: Statistical Methods, Optimisation in Business, Programming for Analytics (Python, SQL), Business Analytics, Technology Consulting, Decision & Behavioural Analytics, Managing Data and AI, Business Decision Support Systems
Upcoming: Statistical Learning, Sports Analytics, Capstone Project

BSc (Hons) Computer System Engineering (First Class Honours) February 2022 - February 2025

University of Sunderland, London, UK

Relevant Modules: Artificial Intelligence, Advanced Data Technology, Data Structures & Algorithms, Product Development, Computing Project Management, Mobile Development, Programming

PROJECTS

UK Study Visa Ban Analysis (Policy Data Analytics) | github.com/znwayoo/uk-study-visa-ban-analysis

Built a modular ETL pipeline in Python (pandas, NumPy, matplotlib, seaborn) processing 1.2M+ rows across 8 UK Home Office

datasets (2015-2025), producing 30+ analytical tables and an interactive Tableau dashboard to evaluate the evidence behind a government policy decision.

- Designed a structured ETL architecture with separate config, loaders, cleaners, transformers, and exporters modules, enabling reproducible analysis across multiple data sources.
- Translated complex immigration statistics into clear, evidence-based findings that challenged the government's stated justification, demonstrating the ability to communicate data insights to non-technical audiences.
- [Tableau Dashboard](#)

Diabetes Risk Prediction (End-to-End ML Solution) | github.com/znwayoo/Predicting-Diabetes-Risks

Built a multi-stage data pipeline processing 400K+ CDC BRFSS 2023 records through data cleaning, feature engineering (reducing 350 variables to 14 key predictors), statistical analysis, and predictive modelling using Python and Scikit-learn.

- Trained and evaluated **6** model types (Decision Tree, Random Forest, XGBoost, LightGBM, Logistic Regression, KNN), achieving **84%** accuracy with SMOTE for class imbalance handling and SHAP for model interpretability.
- Deployed two client-facing applications: a Streamlit prototype for rapid stakeholder feedback (diabetic-doctor-zno.streamlit.app), and a full-stack solution (Flask backend, React.js + TailwindCSS frontend) at ml-doctor-frontend.onrender.com (repo: github.com/znwayoo/ml-doctor).

Human Emotion Detection Using CNN | github.com/znwayoo/Human-Emotion-Detection-Using-CNN

Developed a custom CNN architecture (5 convolutional layers, 4.5M parameters) using Python (TensorFlow, Keras, OpenCV) for facial emotion recognition across 7 categories, trained on 22K+ FER2013 images.

- Applied data augmentation, batch normalisation, dropout regularisation, and learning rate scheduling to achieve **~66%** accuracy, validated against the external CK+ dataset (**981** images) for cross-dataset generalisability.
- Implemented Class Activation Maps for model interpretability, enabling visual explanation of which facial regions drove each prediction.
- Supports live webcam detection and image upload via Streamlit deployment.

KEY SKILLS

Data & Reporting: SQL, Tableau, Power BI, Excel (financial modelling, pivot tables), Dashboard Development, KPI Design, Reporting Solutions, Data Visualisation, PowerPoint, Matplotlib, Seaborn

Analytics & Programming: Python (pandas, NumPy, Scikit-learn), Statistical Analysis, Hypothesis Testing, Regression Analysis, A/B Testing, Predictive Modelling, Data Pipelines, Feature Engineering, Data Cleaning & Validation, Relational Databases

Business & Stakeholder: Requirements Gathering, Stakeholder Engagement, Cross-functional Collaboration, Financial Modelling, Feasibility Analysis, Market Analysis, Process Mapping, Root Cause Analysis, Project Management, Change Management

Supporting Technical: Machine Learning (XGBoost, LightGBM, Random Forest, Logistic Regression), Deep Learning (TensorFlow, Keras, OpenCV), Streamlit, Flask, React.js, Git/GitHub

CERTIFICATIONS

- Python Data Associate | Python Data Scientist | Python Data Analyst | Data Literacy (DataCamp)
- 2025 Bloomberg Global Trading Challenge

AWARDS

- UCD MSc Academic Excellence Scholarship
- Forbes 30 Under 30 Asia (2016)
- Rice Bowl Startup Awards (2015)
- NIN2 Excellent Business Idea Award