Yu-Sen (Eason) Wu

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SUMMARY

Graduate student in Machine Learning and Data Science at Northwestern University. Experienced in developing end-to-end AI and data solutions—from statistical modeling and NLP to cloud deployment—across compliance, education, and consumer applications. Proven ability to design production-ready AI systems, including a multi-agent RAG platform reducing query time by 90% and an automated AML monitoring pipeline cutting manual review by 99%. Adept at translating complex requirements into impactful products, blending technical expertise with business insight.

WORK EXPERIENCE

KYC Analyst Intern

Jun 2025 - Present

WOOX

- Developed an automated compliance monitoring system for crypto exchanges, an automated pipeline to track and compare country restrictions from 16 centralized and 3 decentralized crypto exchanges.
- Utilized GitLab CI/CD for weekly deployments and diff logic to detect policy changes in unsupported countries.
- Integrated Google Apps Script to populate a visualized matrix in Google Sheets, highlighting regulatory shifts over time.
- Delivered automated email reports to the General Counsel (GC) team, enhancing AML monitoring and reducing manual review by 99%.
- Developed an agentic RAG Telegram bot for natural language querying, a production-ready agentic RAG system, enabling team members to query relational databases in plain English, eliminating the need for manual SQL and reducing query time by 90%
- Designed a multi-agent LangChain architecture to route tasks between question interpretation, SQL generation, execution, and summarization, solving hallucination errors of normal RAG.
- Integrated with internal PostgreSQL database and deployed via Telegram Bot, providing lightweight, real-time access for operations and business teams

Gait Identity Recognition Data Modeling Personnel

Jul 2022 - Dec 2024

National Tsing Hua University

- Created a single-step gait-capture workflow; binary-transform features lifted identification accuracy by 31 % over the prior method.
- Deployed a real-time fall risk prediction for construction workers, a CNN+LSTM model on head-worn IMU streams to detect slip patterns 0.1 s before loss of balance, sending haptic alerts. Achieved **96** % alert accuracy in a field pilot.

SELECTED PROJECTS

Tutor-Matching Platform with Free AI Tutor

- An AI-powered education platform that combines instant problem-solving tools with professional tutor matching.
- Built with Next.js, TypeScript, Firebase, n8n, and multiple AI model API, it allows students to upload photos of questions for free 24/7 AI support.
- Aim to eliminate the educational resource gap that exists between wealthy and low-income families, ensuring every student has access to quality learning support.

Mapify - Food Map App Development

- Architected a Flutter app that parses IG embedded HTML with the DeepSeek model, auto-geocodes addresses, and attaches reviews to map pins.
- Cut manual data-entry time per spot from 3 min to less than 20 s and boosted daily active pins 5 times in closed beta.

TECHNICAL SKILLS

- **Skills:** Data Analysis, A/B Testing, Statistical Modeling, Regression, Time Series, NLP, Feature Engineering, Data Mining, Data Modeling, ETL, Data Warehousing, Data Pipeline Architecture, Agile/Scrum
- Tools: Python (Pandas, NumPy, PyTorch, TensorFlow, Seaborn), SQL, R, Java, Dart, JavaScript, HTML/CSS, Git, Docker, MongoDB, PostgreSQL, Power BI, AWS, GCP, Git CI/CD, API Integration

EDUCATION

Northwestern University, Evanston, IL, USA

Sep 2025 - Present

Master of Science in Machine Learning and Data Science

National Tsing Hua University, Hsinchu, Taiwan

Sep 2019 - Jun 2024

B.Sc. & M.Sc. in Industrial Engineering & Engineering Management