YEN LIN (ALLEN) LU

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EDUCATION

New York University, Tandon School of Engineering   May 2026
Bachelor of Science in Math & Computer Science; Dean's List for all academic years   GPA: 3.73/4.00
University of California, Irvine   Sep 2022 - Jun 2023
Bachelor of Science in Math; Dean's Honor List for all quarters   GPA: 3.99/4.00

- **Relevant Coursework:** Machine Learning, Operating Systems, Design and Analysis of Algorithms, Databases, Computer Architecture, Object Oriented Programming, Data Structures, Applied Statistics, Math Modeling

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SKILLS

- **Languages and Tools:** Python, C++, C, R, SQL, JavaScript, HTML/CSS, LaTeX, Git/GitHub, MATLAB, GSuite
- **Frameworks & Libraries:** PyTorch, scikit-learn, XGBoost, imbalanced-learn, Pandas, NumPy, Matplotlib, Bootstrap

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PROJECTS

NBA Championship Prediction System | Python, PyTorch, Sklearn, Streamlit, Pandas, NumPy   May 2025 - Aug 2025

- Engineered an end-to-end sports analytics pipeline, integrating data preprocessing, feature engineering, probability calibration, and AWS S3 model hosting to predict NBA championship probability with 91% accuracy
- Implemented and benchmarked multiple ML models (PyTorch neural network, logistic regression, random forest, XGBoost) with calibration and soft-vote ensembling, improving F1 score by 15%
- Built an interactive Streamlit web app enabling users to construct custom rosters under salary-cap constraints and view real-time championship predictions

Loan Default Predictor | Python, Sklearn, NumPy, Matplotlib   Jan 2025 - May 2025

- Optimized models (logistic regression, SVM, neural network) to predict loan defaults with 92.1% accuracy
- Preprocessed 32K+ data entries using imputation, one-hot encoding, scaling, and PCA to reduce bias by 20%
- Improved F1 score by 12% through targeted feature engineering, hyperparameter tuning, and model optimization

Airline Ticket Reservation System | Python, Flask, SQL, HTML, CSS   Sep 2024 - Jan 2025

- Designed an online flight booking system with distinct functionalities and UI for customers and airline staff accounts
- Architected a Flask-based API with MySQL backend, handling concurrent requests and secure database transactions
- Designed an intuitive HTML/CSS interface to streamline booking workflows and improve user experience

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EXPERIENCES

NYU IT- *Student Product Support Analyst;* New York, New York   Oct 2024 - Present

- Test and troubleshoot NYU Brightspace updates pre-deployment, ensuring smooth transitions for 80,000+ users
- Develop training materials and documentation while managing user support and delivering live Brightspace training

Athleo.ai - *Software Engineer Intern;* Boston, Massachusetts (Remote)   Jun 2024 - Aug 2024

- Engineered a responsive website using HTML, CSS, and JavaScript, attracting 1,500+ daily views
- Executed QA testing with software team, resolving 20+ client-reported issues and implementing user-driven improvements that increased reliability and user satisfaction
- Produced and optimized technical videos, achieving 30,000+ views and streamlining product onboarding

Hersheen Enterprise - *Engineering Intern*; Taiwan   Jul 2023 - Aug 2023

- Redesigned the company's website using HTML and WordPress, increasing daily traffic by 1000+ visitors
- Modeled 3D carpet designs in Catia for manufacturing and assembled complex structures by integrating multiple parts

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EXTRACURRICULARS

Applied Math Club - *Secretary / Treasurer*, **NYU Theta Tau Professional Engineering Fraternity** -*Webmaster / Treasurer*, **NYU VIP RoboMaster Team, Private Mathematics Tutor**