Keming Xing

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Education Background

Northeastern University, Boston, MA **May 2026**

Master of Electrical and Computer Engineering, Concentration in Computer Vision, Machine Learning, and Algorithms

Relevant Courses: Advanced Machine Learning, Data Visualization, Introduction to Algorithms

Wenzhou Kean University, Wenzhou, China **June 2024**

Bachelor of Science in Computer Science and Technology, Minor in Math and Applied Math

Relevant Courses: Artificial Intelligence, Introduction to Computer Vision, Software Engineering, Game Programming

Technical Skills

Programming Languages: Java, Python, C, C++, C#

Libraries: OpenCV, NumPy, TensorFlow, PyTorch, Pandas, Matplotlib, Scikit-learn

Machine Learning: Ensemble models, Random Forest, Decision tree, KNN, SVM, Naive Bayes, K-Means

Professional Experience

Kean-University, Wenzhou, China **March 2021-May 2024**

Research and Teaching Assistants, College of Science, Mathematics and Technology

- Collaborated with professors on applied machine learning projects, focusing on algorithm implementation, model optimization, and deployment of Python-based solutions in research prototypes.
- Served as a teaching assistant for 30+ students, delivering practical instruction in Python programming, data structures, and algorithm design, and supporting hands-on coding labs that bridged theory and application.
- Contributed to team-based development workflows, including code reviews, documentation, and testing to improve the reliability and scalability of research software tools.

Beijing DXC Technology, Wenzhou, China **July 2021-September 2021**

Software Testing Engineer

- Built and executed automated test suites for core modules (40%+ coverage), reducing manual QA time by 30% and improving release stability.
- Collaborated with developers to identify and resolve critical defects, cutting post-release issues by 25%.

Academic Projects

Spam Detection with Machine Learning **November 2024-December 2024**

- Designed and implemented a spam email classifier in Python to identify unsolicited emails, achieving 95% accuracy by optimizing Random Forest and SVM models.
- Applied Principal Component Analysis (PCA) to reduce dimensionality from 1,000+ features, which improved model accuracy by 5% and reduced training time by 20%.
- Developed an automated feature engineering pipeline and visualized feature importance with Matplotlib, improving scalability, reproducibility, and accelerating feature selection for modeling.

Correction of Pen-Holding Posture Using Computer Vision **April 2024-June 2024**

- Designed an end-to-end computer vision system with MediaPipe and Random Forest, achieving 92% real-time accuracy in posture detection.
- Optimized frame capture and processing pipeline, improving responsiveness by 35% and enabling instant corrective feedback.

Farm Suitable Crop Data Analysis **April 2024-June 2024**

- Built a data processing pipeline and Random Forest model in scikit-learn to recommend optimal crops from soil and climate data.
- Enhanced model performance through feature optimization and visualized results for clear, actionable recommendations.