XINXING WU, PH.D.

Applied Scientist | AI Data Scientist | Machine Learning Engineer (U.S. Permanent Resident)

GitHub — https://github.com/xinxingwu-uk **Homepage** — https://xinxingwu.github.io

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Developed and open-sourced ML algorithms (**NeurIPS**/**AAAI**/**IJCAI**) adopted in multiple applied analytics pipelines; Expert in feature selection, deep learning, GNNs, survival analysis, algorithmic stability; with recent work on LLMs. Built reproducible Python pipelines and dashboards end-to-end that drive decisions. Strong in problem scoping, modeling, evaluation, and clear stakeholder communication.

TECHNICAL SKILLS

- **ML & Stats**: feature selection, deep learning, GNNs, survival analysis, algorithmic stability, anomaly detection, ensemble learning, multimodal learning, model design and evaluation, LLM Fine-tuning, etc.
- **Data & Visualization**: Pandas, NumPy, Matplotlib, Seaborn; dashboards (Plotly/Streamlit); SQL.
- **Libraries**: TensorFlow/Keras/PyTorch, Scikit-learn, Transformers, SciPy, Scrapy, Gradio, etc.
- **Programming**: Python, R, Java, C#, Ruby; React/React native; PHP, JavaScript, etc.
- **Workflow**: GitHub, JupyterLab/PyCharm, Power BI/Tableau, Linux, GPU training (TACC; Colab)
- **Certifications**: Red Hat Certified Engineer (RHCE); Red Hat Certified System Administrator (RHCSA)

SELECTED PROJECTS - OPEN SOURCE

- **FAE** - Fractal Autoencoders for Feature Selection (AAAI'21). Tensorflow+Keras: Repo
- **UFS** - Stability & Generalization for Unsupervised Feature Selection (NeurIPS'21). Repo
- **DGAE** - Deep Graph Neural Network for Link Prediction (IJCAI'22). Repo
- **AD_Survival** - DeepSurv pipeline for clinical survival analysis. Scikit-learn: Repo
- **SSVA** - Singing Syllabi with virtual avatars (2025). LLMs: Repo **JS Projects** - Repo

EXPERIENCE

External Experts Program at Amazon MTurk (Part-time), 2025 - Present
Designed challenging math/analysis tasks to probe LLM reasoning; created rubrics and analyzed failure modes; suggested model improvements.

Assistant Professor at Midway University, Kentucky, United States, 2023 - 2025
Conducted applied research translating to open-source repositories and classroom adoption (e.g., SSVA). Designed and delivered practice-oriented ML projects using real-world datasets.

Principal Investigator at Shanghai Threebio Technology Co., Ltd. (Part-time), Shanghai, China, 2016 - 2018
Built demand-forecasting and statistical computing pipelines from historical purchase data; delivered actionable insights to product.

Algorithm Engineer at Shanghai Advanced Research Institute of CAS, Shanghai, China, 2012 - 2013
Implemented high-throughput algorithms on many-core (Tilera) architectures; optimized data-parallel performance in Python and C-based environments.

Algorithm Developer at Shanghai Alcatel Network Support Systems Co., Ltd., Shanghai, China, 2011 - 2012
Developed analytics features using Java/SQL; collaborated with platform engineers to integrate algorithms into production services.

EDUCATION

- Postdoctoral Scholar, ML & Data Analysis - University of Kentucky, United States, 2019 - 2022
- Visiting Researcher, ML - Boston University, United States, 2018 - 2019
- Ph.D., Computer Applications Technology - East China Normal University, China, 2007 - 2011