# HAPPY N. MONDAY, PHD

Raleigh, North Carolina, 27609, USA

Web of Science

Google Scholar | Github | ResearchGate | Personal Website



# **EMPLOYMENT**

Applied AI and and ML engineer with a strong record of turning real-world problems into useful, explainable ML products. I design and deliver end-to-end solutions, scoping the business need, shaping data strategy, training and evaluating models, and deploying prototypes with Streamlit. Hands-on with TensorFlow/Keras, scikit-learn, OpenCV. HuggingFace, and XAI (Grad-CAM, SHAP). Earned research awards, mentored 40+ junior researchers, and led workshop-training of up to 116 researchers. I partner well with clinicians, product, and engineering, translating requirements into clear roadmaps and measurable results. Known for improving accuracy and reliability while shortening timeto-value, I coach teams, review code, communicate clearly, and build trust. I am ready to help a forward-thinking organization accelerate research-to-product and deliver scalable, responsible AI impact.

# SKILLS

### **Technical Skills**

- AI/ML/DL/XAI
- Data Exploratory Analysis/Data Handling
- TensorFlow/Keras/OpenCV/BigQuery
- Scikit-Learn/Pandas/Numpy/Jupyter
- LLM/RAG Fundamentals/HuggingFace
- Python/SQL/Streamlit/Matplotlib
- Experiment design/Error analysis/Github
- Data labeling/Augmentation/Supabase
- Code review/Responsible AI/Mentoring

#### **Business Skills**

- Program/Project management
- Team leadership/Mentorship
- Research/Publication Strategy
- Risk Management/Compliance Mindset
- Partnership/Program Coordination
- Data-Driven Decision Making
- External Relations/Community Building
- Curriculum/Training Enablement
- Process/Quality Operations

## WORK AUTHORIZATION

- U.S. Permanent Resident (Green Card)
- On-site/Hybrid/Remote: Open

# Senior AI/ML Engineer

### **CDUT-Al Center**

Apr. 2025 - Sept. 2025

- · Launch a government-sponsored international AI project. Co-led workshop curriculum and hands-on labs (CV, ML, XAI) and coordinated instructors. Earned Outstanding mentor. First foreign employee at CDUT-AI Center to receive this honor.
- Build an applied project pipeline with measurable outcomes. Supervised 40+ projects; standardized weekly progress reviews and code templates. Achieved first team-led journal publication for the Center.
- Translate research into usable tools. Shipped FastAPI apps for imaging demos and mentoring-level LLM/RAG examples. Accelerated prototyping and stakeholder demos across modules.
- · Developed an adaptive focal cross-entropy multi-lead ECG pipeline, improving minority-class recall by 12% and stability by 18%; shipped clinician-ready XAI dashboards.
- Designed an interpretable CKD screening workflow with FFS-IML + SHAP, reducing feature count by 45% and training time by 28% with 0% AUC loss.

#### Senior Researcher (AI/ML) **CDUT-Al Center**

Aug. 2022 - May 2025

- Led cross-institutional project with the Big Data Research Institute, the Joint Research Centre of Agricultural Big Data, and CDUT-Al Center; coordinated datasets, protocols, and deployment standards across labs.
- Delivered multi-domain ML systems (clinical, industrial, agricultural) and transitioned publication-grade models into demo services and mentoring pipelines.
- Designed lab sequences (TensorFlow/Keras, OpenCV) and assessments for cohorts up to 116 researcher. Delivered consistent outcomes across Machine Vision, ML, and DL.
- Led/Co-authored work on DR, ECG, CT/CXR super-resolution and robust classification. 70+ publications, Best Paper (PRAI '21), Best Oral (ICAIT '24), multiple TPC roles (ICACS, PRAI).
- Co-chaired the Computing Research Team; instituted code review gates and presentation milestones. Sustained throughput of team projects to conferences and journals.

### Researcher Collaborator | UESTC-Big Data Research Institute

Jul.2020 - Jul.2022

- · Built a comparative ML pipeline for building-insurance risk modeling, increasing AUC by 4% and reducing misclassification of high-risk policies by 22%.
- Managed feature-selection governance by benchmarking Boruta, SHAP, and BorutaSHAP, cutting feature set size by 40% and training cost by 25% with stable AUC.
- Institutionalized explainability and feature-selection policies; improved model parsimony, governance, and deployment readiness by 24 - 32%.
- Developed a dual-channel weighted-fusion network for diabetic retinopathy, improving AUC by 6% and sensitivity by 9%.
- Implemented a lightweight separable-conv histopathology model, shrinking parameters by 65% and increasing throughput by 45% with accuracy of 98%
- Enhanced CT identification using mESRGAN+ with Siamese capsules, improving AUC by 6% and cutting clinician review time by 25%

#### Researcher Collaborator | UESTC-Joint Research Center of Agri. Big Data Sep.2018 - Jun.2020

- Built an attention-fused seq2seq CNN + FastAPI service for solar irradiance forecasting, lowering RMSE by 18% and improving scheduling efficiency by 12%.
- Engineered a residual multi-scale classifier for rice grain varieties, boosting accuracy vs. baseline CNNs by 6% and cutting inference latency by 40%.
- Standardized fruit-detection evaluation via taxonomy/benchmarks, cutting dataset prep time by 40% and boosting reproducibility by 22%.
- Developed a wildlife detection framework with modified multi-scale attention + FPN, improving mAP by 8% and reducing false detections by 22%.
- Delivered agriculture/energy pipelines for forecasting and classification; improved field-readiness, reproducibility, and decision support by 28 - 34%.

# **EDUCATION**

PhD in Computer Science and Technology | University of Electronic Science and Technology of China Masters in Electronic Science and Technology | University of Electronic Science and Technology of China Bachelor of Engineering in Agricultural Engineering | Federal University of Technology, Akure, Nigeria Postgraduate Certificate in International Education (PGCIE) | Staffordshire University, UK

## CERTIFICATES

IBM Generative AI; IBM Data Science; Google Data Analytics; IBM Developing AI Apps with Python & Flask; DeepLearning.Al Deep Learning Specialization (Stanford)