Sadura Priscilla AKINRINWA

Email: spakinrinwa@futa.edu.ng   **Phone:** (+234)8036341134

Professional Profile

Experienced Researcher in Computer Vision and Artificial Intelligence with a Ph.D. in Computer Science. Over a decade of academic and research expertise in developing and deploying advanced deep learning models. Proficient in utilizing cutting-edge deep learning frameworks such as TensorFlow and PyTorch, with a robust programming background in Python. Demonstrated success in research, including intelligent systems and medical image analysis, with a commitment to advancing the field of computer vision through innovative solutions and impactful results.

Education Background

1st March 2017- November, 2021	***Federal University of Technology Akure (FUTA), Akure, Ondo State, Nigeria*** **PhD in Computer Science** Thesis Title: Breast Histopathology Images Multi-Classification with Ensembles of Deep Convolution Neural Networks. **Description:** Leveraging Python and Tensorflow library, I developed a classification system using ensemble methods of deep convolutional neural networks. The research involved meticulous curation of a histopathological image dataset from locally sourced breast tissue glass slides, ensuring a comprehensive and representative data foundation. The outcomes of this work significantly contributed to the field of medical image analysis, demonstrating potential applications in automated diagnostic tools. **Degree award date: 12th November, 2021**
10th January, 2012 - 12th December, 2015	***Federal University of Technology Akure (FUTA), Akure, Ondo State, Nigeria*** **Master of Technology in Computer Science** Thesis Title: Development of a Decision Support System for Exam Timetabling **Degree award date: 20th January, 2016**
1st September, 2003 - 31st August, 2008	***Federal University of Technology Akure (FUTA), Akure, Ondo State, Nigeria*** **Bachelor of Technology (B.Tech) in Computer Science** Project Title: Development of a Multimedia Geographical Information System for Tourism in Lagos state **Degree award date: 15th October, 2008**

Peer-Reviewed Publications

- Deep Learning Models for Classification of Covid-19 Severity Levels (O. Olabode, K. G. Akintola, E. Adeyemi, O. R. Akinyede, B. Afeni, R. Akinbo, A. I. Olabode, and **S. P. Akinrinwa**)   2024
  J Inform Techn Int, 1(1): 102 https://doi.org/10.33790/jiti1100102
- Breast Histopathology Images Multi-Classification using Ensemble of Deep Convolutional Neural Networks (**S.P. Akinrinwa**, O. Olabode, O.C. Agbonifo, K.G. Akintola)   2022
  International Journal of Scientific Research in Computer Science and Engineering, 10(6), pages 9-21.
- The Influences of Digital Divide on Career Selection in Information Technology among Secondary School Students in Akure Metropolis (Afolayan, A. H., Ojokoh, B. A. and **Akinrinwa, S. P.**)   2017
  The Federal University of Technology, Akure, School of Sciences Fifth Annual Conference, pages 303-316.
- Decision Support System for Examination Timetabling (**Akinrinwa, S. P.**, Olabode, O., Oluwadare, S. A., and Adesuyi, A. T.)   2015
  OWSD FUTA 2015 conference proceedings, pages 439-444.

Peer-Reviewed Poster Presentations

- Towards Real-Time Breast Cancer Diagnosis: Enhancing CNN Model Efficiency and Fairness
  S. P. Akinrinwa, O. M. Omotosho   2024

Poster presented at NeurIPS Affinity Groups Poster Sessions
- Enhancing Healthcare Access: A Data driven Hybrid Collaborative Filtering Sentence Similarity Approach to Personalized Physician Recommendations
(**Sadura Akinrinwa,** Olatubosun Olabode, Olatayo Adewuyi)   2023
Poster presented at NeurIPS, Women in Machine Learning Workshop
- A Study on Breast Histopathology Images Multi-Classification with Ensemble of Deep Convolutional Neural Networks **Akinrinwa S. P.**, Olabode O., Agbonifo, O. C. Akintola, K. G   2020
Poster presented at the 2nd African Symposium on Big Data, /analytics and Machine Intelligence and 6th TYAN International Thematic Workshop
- Analysis of Computational Resource Usage of Deep Learning Models on Breast Histopathological Images Classification Task **(Akinrinwa, S. P.** and Oni, S. A.)   2019
Poster presented at the Women in Machine Learning workshop at NeurIPS, December, 2019

Publications in Progress

- Towards Real-Time Breast Cancer Diagnosis: Enhancing CNN Model Efficiency and Fairness
S. P. Akinrinwa, L. Agbotiname   2024
- NLP Model for Postgraduate Research Examiner Recommendation Based on Scholarly Activity
(**Sadura Akinrinwa,** Samuel T. Ogunjo, Kehinde D. Akinrinwa)   2024
IEEE Nigercon 2024 conference
- Prosodic Parameterisation and Ensemble Machine Learning Techniques for Speech Emotion Detection (Olaniyan Julius, Ibidun. C. Obagbuwa, Esiefarienrhe B. Michael, Ayodele A. Adebiyi, Olaniyan Deborah **Akinrinwa S. P.**)   2024
IEEE Nigercon 2024 conference
- Direct English-to-Yoruba speech Translation model using Transformer with Augmented Attention Mechanism (Olaniyan Julius, Ibidun. C. Obagbuwa, Esiefarienrhe B. Michael, Ayodele A. Adebiyi, Olaniyan Deborah **Akinrinwa S. P.**)   2024
IEEE Nigercon 2024 conference

Research in Progress

- Large Language Model Chatbot for Mental Wellbeing Evaluation for First Year Undergraduate Students
- Transforming Healthcare through Machine Learning: Enhancing Disease Diagnosis, Prognosis, and Social Well-being.

Work Experience

Role: Lecturer	Department of Data Science / Department of Information Systems, Federal University of Technology Akure (FUTA), Akure, Ondo State, Nigeria
26th June, 2023 - Present	Description:

- Courses Taught: Python Programming, Data Analysis, System Administration, Computer Networks, Introduction to Data Science and Machine Learning.
- Curriculum Development: Create and deliver course materials, including lectures, labs, exams, and assignments.
- Hands-on Experiments: Lead practical sessions in Python Programming, Data Analysis, Computer Networks, and System Administration.
- Research Supervision: Supervise undergraduate research, resulting in conference presentations and publications (eight theses supervised).
- Administrative Roles: Serve as the School Registration Officer and Adviser for first-year Information Systems students.
- Student Groups: Advise the African Digital Health Student Network and Data Scientist Network at FUTA.

Roles: Course Instructor | Practical Demonstrator | Research Assistant **13th August, 2013 – 26th June, 2023**	**Department of Information Technology, Federal University of Technology Akure (FUTA), Akure, Ondo State, Nigeria** **Description:** • Courses Taught: Python Programming, Comparative Programming with Python and PHP, Introduction to Data Science, and Computer Networks. • Curriculum Development: Designed new instructional programs with comprehensive lesson plans and outlines. • Student Evaluation: Assessed students through written, oral, and practical exams. • Technical Setup: Installed and managed computer hardware, software, and network solutions. • Seminars: Delivered over 10 seminars on computational technologies to students and faculty. • Research Contributions: Conducted deep learning research for histopathology image classification, curating and analyzing specialized dataset to advance health research.
Role: Network Engineer *to* **Principal Network Engineer** **9th November, 2011 – 26th June, 2023**	**Computer Resource Centre, Federal University of Technology Akure (FUTA), Akure, Ondo State, Nigeria** **Description:** • Network Installation and Support: Installed and managed Cisco and Mikrotik switches and routers, providing comprehensive network installation and support services. • IP Network Solutions: Engineered and executed end-to-end IP network solutions on Cisco devices, ensuring reliable connectivity across the campus. • Technical Expertise: Demonstrated proficiency in DHCP, Firewall, Proxy, DNS, Load Balancing, HTTP/HTTPS, TCP/IP networks, network design, configuration, and infrastructure management. • LAN Management: Successfully managed the LAN across six university buildings, resolving both wired and wireless connectivity issues. • Documentation: Created detailed documentation of processes and procedures to support the deployment and maintenance of network devices. • Hardware and Software Maintenance: Conducted hardware and software repairs, troubleshooting, and maintenance to ensure optimal system performance.

Skills

Python	Machine Learning	Data Analysis / Visualization	Deep Learning	Research
Pytorch	Tensorflow	Keras	SQL	Pandas
Numpy	Pandas	Matplotlib	Github	Windows

Other Skills:
• **Research and Teaching:** Experienced in curriculum development, instructional delivery, and academic research.
• **Practical Instruction:** Skilled in conducting hands-on lab sessions and technical demonstrations.
• **Written Communication:** Proficient in report generation, academic writing, and documentation.
• **Student Engagement:** Effective in student advisement, mentorship, and facilitating group discussions.
• **Data Reporting:** Strong ability to generate and analyze reports, create spreadsheets, and manage databases.

Volunteer Experience

3 Million Technical Talent (3MTT) Data Analysis and Visualization Trainer
Federal University of Technology, Akure, Nigeria   *October-December 2024*

Data Analysis and Computer Networks Entrepreneurial Course Trainer
Federal University of Technology, Akure, Nigeria   *June 2016 - August 2022*
Conference Volunteer
Super Computing Conference (SC16 - SC20)
- Assisted at the Conference Information Booth, providing information and support to attendees.
- Supported the Student Office with various tasks, including registration, coordination, and logistical assistance.

Trainings and Certification

Udacity data Analyst Nanodegree   2022
AWS Machine Learning Foundations   2022
Accounting Fundamentals   2022

Scholarships and Awards

- Women in Machine Learning (WiML) NeurIPS Presenter Travel Grant 2024
  $2,885 USD   Awarded by WiML
- Dan Kohn Scholarship for KubeCon + CloudNative Europe 2023
  $2,500 USD   Awarded by Linux Foundation
- Women in Machine Learning (WiML) NeurIPS Presenter Travel Grant 2019
  $1,890 USD   Awarded by WiML
- NeurIPS Travel Grant 2019
  $500 USD   Awarded by NeurIPS
- Information Centric Networking 2019 Travel Grant
  $3,400 USD   Awarded by Association for Computing Machinery (ACM)
- Super Computing Conference 2019 (SC19) Lead Volunteer Travel Grant
  Airfare and Hotel   Awarded by ACM
- Grace Hopper Celebration for Women in Computing (GHC) 2018 Scholarship
  Airfare, Hotel, and $580 USD Stipend   Awarded by Cisco Systems Inc.
- Super Computing Conference 2018 (SC18) Travel Grant
  Airfare and Hotel   Awarded by IEEE
- SC18 Travel Grant
  ₦150,000   Awarded by FUTA, Akure, Nigeria
- N2Women Travel Award 2017
  $1,250 USD   Awarded by N2Women
- ACM Special Interest Group on Data Communication (SIGCOMM) 2017 Travel Grant
  $800 USD   Awarded by SIGCOMM
- SIGCOMM Travel Grant
  ₦520,000   Awarded by FUTA, Akure, Nigeria
- Super Computing Conference 2017 (SC17) Travel Grant
  Airfare and Hotel   Awarded by IEEE
- Super Computing Conference 2016 (SC16) Travel Grant
  Airfare and Hotel   Awarded by ACM