ABUBAKAR SADIQ SHITTU

Knoxville, Tennessee, United States

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RESEARCH INTERESTS

Usable Security and Privacy

EDUCATION

University of Tennessee, Knoxville　　　　　　　　　　　　　**Jan. 2025 - present**
PhD Computer Science　　　　　　　　　　　　　　　　　　*Knoxville, TN, USA.*
Advisor: **Dr. Scott Ruoti**

Newcastle University　　　　　　　　　　　　　　　　**Sept. 2023 - Aug. 2024**
M.Sc. Advanced Computer Science **(Distinction)**　　　　　*Newcastle, United Kingdom.*
Advisor: **Professor Thomas Gross**

Fountain University Osogbo　　　　　　　　　　　　　**March 2018 - Apr. 2021**
B.Sc. Computer Science **(First Class Honours)**　　　　　　　　*Osogbo, Nigeria.*
Advisor: **Dr. Lawal Mohammed**

Federal Polytechnic Bida　　　　　　　　　　　　　　**Nov. 2015 - Sept. 2017**
National Diploma (associate degree) in Computer Science　　　　　　*Bida, Nigeria.*

RESEARCH EXPERIENCE

Graduate Research Assistant　　　　　　　　　　　　　**Jan 2025 - present**
The User-centric Security and Engineering Research (USER) Lab　　　*Knoxville, TN, USA.*

- Conducting user-centered research on security and privacy practices.
- Support user study design and data collection, including survey creation, interviews, and usability testing.
- Contribute to literature reviews, project reports, and academic papers for lab research projects.

TEACHING EXPERIENCE

10 Academy　　　　　　　　　　　　　　　　　　**Aug 2022 - Jan. 2023**
Careers Tutor (Supervisor: **Arun Sharma**)　　　　　　　　*Addis Ababa, Ethiopia.*

- Designed and led 3-hours per week career development lectures for web3, data science, and machine learning trainees, demonstrating skills in curriculum planning, content delivery, and audience engagement.
- Graded and provided detailed feedback on career exercises to over 30 trainees, enhancing preparation for job search phase post-training completion.
- Delivered holistic job search support to alumni, encompassing tailored reviews of resumes and cover letters, and personalized interview coaching, which enhanced their candidacy.

MINI PROJECTS

Secure Chat System　　　　　　　　　　　　　　　　**March 2024**
MSc Module: Research and Group Project in Security and Resilence　　*Newcastle, United Kingdom.*

- Participated in an 8-member team project focused on developing a secure chat system that allow text and file exchange.
- Engaged in threat modelling and security policy development to identify potential adversaries, and define their capabilities and motivations to ensure the chat system's security .
- Implemented a chat system leveraging the Spring Boot and Spring Security frameworks in Java, employing WebSocket for encrypted message exchanges between clients and servers.

Predictive Analysis Of Weather Trends
MSc Module: Machine Learning

December 2023

Newcastle, United Kingdom.

* Conducted an analysis of weather data collected over 12 months using a Raspberry Pi computer, aiming to predict weather conditions at intervals ranging from 5 minutes to 12 hours.
* Explored various forecasting models, including Long Short-Term Memory (LSTM), Autoregressive Integrated Moving Average (ARIMA), and Moving Average, based on their strengths and suitability for time series data.
* Derived an optimised model architecture for the LSTM neural network, achieving an R-squared score of 0.9827.

PUBLICATIONS

[1] Shittu, A. S., and Abdulsalami, B. (2023). *Software Defect Prediction Using Machine Learning Approach: A Contemporary Review. TechRxiv Preprint. https://doi.org/10.36227/techrxiv.23648907.v1.* 🗗

AWARDS & FUNDING (Total: $213,503)

[1] **2025 EECS Graduate Assitantship**, University of Tennessee Knoxville (**valued at $66,318**)

[2] **F**unding to attend the Summer School on real-world crypto and privacy 2024. (**valued at $1,185**)

[3] **2023 Chevening Scholarship** : Total costs for a master's degree at Newcastle University, covering visa application fees, tuition, living expenses, and travel allowances.(**Approximately $60,000**)

[4] **2023 Commonwealth Shared Scholarship**: Full funding for a Master of Science in Financial Technology at the University of Stirling. (**Approximately $60,000**)(***Declined in favor of Chevening Scholarship.***)

[5] **100% Scholarship** : Funding for Master of Science in Computer Engineering at Kadir Has University, Istanbul, Turkey. - 2022 (***Award declined***)(**valued at $12,000**)

[6] **AIT Partial Scholarship 2022** , towards a master's in Data Science & Artificial Intelligence at the Asian Institute of Technology, Thailand. (**Approximately $14,000**)(***Award declined***)

[7] **2019 Most Outstanding Student Award**, College of Natural and Applied Science, Fountain University Osogbo.

OTHER WORK EXPERIENCE

Student Ambassador
Newcastle University.

Oct. 2023 - Aug. 2024

Newcastle, United Kingdom

* Involved in university events and marketing initiatives, including leading Open Days, guiding campus tours, and participating in focus groups aimed at enhancing the student experience.

Administrative Assistant
Directorate of Admissions, Examination and Records, Kaduna State University.

Oct. 2021 - Oct. 2022

Kaduna, Nigeria

* Inspected undergraduate examination procedures, ensuring adherence to academic standards and upholding the integrity of the assessment environment.
* Coordinated student complaints and appeals for admissions and exams.
* Catalogued important documents and guided new students through the registration process.

Information Technology Helpdesk Intern
Nigerian National Petroleum Corporation.

March 2019 - Aug. 2019

Abuja, Nigeria

* Served as the primary technical support contact for a network of over 100 computer users, resolving an average of 5 queries per day.
* Explained technical details in understandable terms for all support interactions.
* Achieved a high satisfaction rate through diligent follow-ups, ensuring resolution of user issues.

PROFESSIONAL MEMBERSHIPS

[1] Black in AI, **Member**
[2] Society for Multidisciplinary and Advanced Research Techniques in Africa, **Member**

SKILLS AND HOBBIES

Operating System: Linux, Windows
Research Analysis Tools: NVivo, Python, G*Power
Static Analysis Tools: SonarQube
Hobbies: Watching and playing football, playing FIFA, talks about computer security and listening to afrobeat music.