Ebuka Johnbosco Okpala
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Education

Clemson University, Clemson, SC
Ph.D. in Computer Science — August 2020 – May 2024 (Expected)
- Research interests: Applied ML, Deep Learning, and Natural Language Processing

M.S. in Computer Science: GPA: 3.75 — August 2018 – May 2020
- Relevant coursework: Design and Analysis of Algorithms, Deep Learning, Hand on Machine Learning, Applied Data Science, Database Management Systems, Software Architecture and Computer Security

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
B.Sc. Computer Engineering: Second Class (Upper division) — August 2011 – June 2015

Technical Skills

Programming Languages: Python, C/C++, Java, Swift and SQL
Machine Learning Libraries: TensorFlow, Keras, PyTorch, Trax, Scikit-learn, Numpy and Pandas
Web Development: JavaScript, PHP, jQuery, Node.js, MySQL, HTML5 and CSS
Big data: Splunk and Apache Superset

Work Experience

Clemson Online - Clemson University — Clemson, SC
Digital Tech Coordinator (Graduate Assistantship) — August 2019 – Present
- Developed data analytics dashboards using SQL, Splunk, and its Search Processing Language. These dashboards provide insights into how students and faculty use learning tools and have enabled the University to decide what tools to retain, thereby saving costs.
- Worked across teams to develop and maintain the learning technology tools' websites of Clemson University that Clemson Online supports
- Automated the calculation of location metrics of thousands of Clemson University students. Improving a manual process that took weeks to under 5 minutes

Apple Inc — Seattle, WA
AI/ML Software Engineering Intern — May 2022 – August 2022
- Built the integration and tooling upon which the Siri Smart Home Experience team drives quality in performance ahead of seeding and production. Developed an analytics dashboard to visualize and access the measured performance and latency metrics

Apple Inc — Seattle, WA
AI/ML Software Engineering Intern — May 2021 – August 2021
- Developed a new end-to-end Siri in the home feature that enable users discover the automations in their home

Eresea Foods Inc — Anambra, Nigeria
Web Software Developer — January 2017 – June 2018
- Designed and developed the Eresea Foods' website from start to production and managed the website after production

Andela — Remote
Web Application Developer Trainee — October 2017 – May 2018
- Developed a progressive news feed headlines web application
- Developed RESTFUL APIs for a web-based student information system using Node.js, AngularJs and MonogoDB

Publications and Posters

- **Enhancing AI-Cybersecurity Education Through Designing AI/ML-based Cyberharassment Detection Labs.** Nishant Vishwamitra, Ebuka Okpala, Keyan Guo, Song Liao, Long Cheng, Hongxin Hu, Yongkai Wu, Xiaohong Yuan, Jeannette Wade, Sajad Khorsandroo. Special Interest Group Computer Science Education (SIGCSE), 2023. (In review)

- **AAEBERT: Debiasing BERT-based Hate Speech Detection Models via Adversarial Learning.** Ebuka Okpala, Long Cheng, Nicodemus Mbwambo, Feng Luo. International Conference on Machine Learning and Applications (ICLMA), 2022. (In review)
- **Characterizing Offensive Tweets in the Era of COVID-19.** Song Liao, Ebuka Okpala, Long Cheng, Nishant Vishwamitra, Mingqi Li, Hongxin Hu, Feng Luo, Matthew Costello. (In revision)
- **COVID-HateBERT: a Pre-trained Language Model for COVID-19 related Hate Speech Detection**. Mingqi Li, Song Liao, Ebuka Okpala, Tong M, Matthew Costello, Long Cheng, Hongxin Hu, Feng Luo. International Conference on Machine Learning and Applications (ICMLA), 2021
- **COVID-19: A Pandemic of Anti-Asian Cyberhate**. Matthew Costello, Long Cheng, Feng Luo, Hongxin Hu, Song Liao, Nishant Vishwamitra, Mingqi Li, Ebuka Okpala. Journal of Hate Studies (JHS), 2021
- **BranchCorr: Detecting Incompatible Branch Behavior by Enforcing Branch Correlation Integrity**. Long Cheng, Ebuka Okpala, Song Liao, Danfeng(Daphne) Yao. Secure Development Conference (SecDev), 2019 poster

Projects

- Designed the hyperparameter tuning and adversarial attack labs in the EAGER SaTC lab project. The hands-on labs engage students in AI-driven, socially-relevant cybersecurity. Designed and developed the EAGER SaTC website