

Hannah K. Bako

Curriculum Vitae

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Education

- 2019–2024 **Doctor of Philosophy, Computer Science**, *University of Maryland*, College Park.
Advised by Dr. Leo (Zhicheng) Liu and Dr. Leilani Battle
- 2017–2019 **Master of Science, Software Engineering**, *Stevens Institute of Technology*, Hoboken, NJ.
- 2011–2015 **Bachelor of Science, Computer Information Systems**, *Babcock University*, Ogun, NG.

Experience

Industry

- May **Design & Visualization Intern**, *Apple AI-ML*, Seattle, WA.
- 2021–June 2021
 - Collaborated with broader teams across Apple to research and develop innovative ML strategies for challenging problems that will affect future Apple products*Mentor: Donghao Ren*
- Sept 2017–May 2019 **Graduate Assistant**, *Systems Engineering Research Center (SERC)*, Hoboken, NJ.
 - Developed a web-based data collection and processing tool for the World Wide Directory (www.wwdsie.com)
 - Improved SERC website user experience through continuous updates to the web pages
 - Reduced cost of maintaining contacts data by developing effective data management measures
 - Organized annual SERC Sponsored Research Reviews and SERC Doctoral Students Forum conferences
- Jan 2017–Jul 2017 **Android UX Software Developer**, *Nhub Nigeria*, Plateau, NG.
 - Involved in the implementation of scalable software systems for clients
 - Collaborated with team members to research, design and implement applications that solve real-world problems
 - Improved intern performance through training on introduction to programming and problem-solving skills

Research

- Fall 2021–Present **Doctoral Researcher**, *Human-Data Interaction Group*, University of Maryland, College Park.
 - Evaluating how Visualization Design Examples affect Design Ideation**
Conducting a two part study to evaluate (1) understanding the current practices of visualization creators when utilizing examples to formulate design ideas in their day to day tasks and (2) measure how visualization design examples affect visualization design outcomes for visualization designers

- Fall **Doctoral Researcher**, *BAD Lab*, University of Maryland, College Park.
- 2019–Present
- **Automated Development Environment for Rapid Visualization Authoring in D3**
Investigated techniques and approaches used by D3.js users to create interactive visualizations on the internet. Using the results of this investigation, I developed three automated features for generating and fitting visualization templates, predicting possible interactions users may want to implement and augmenting already existing D3 code to include new interactions. These features were implemented in an automated development environment called Minerva. *In submission to CHI 2022*
 - **Evaluating Creativity During Visual Exploratory Analysis**
Carry out experiments to evaluate how the insight generation process during visual exploratory analysis affects the measures of creativity for visualization users.

Teaching

- Fall **Graduate Teaching Assistant**, University of Maryland, College Park.
- 2019–Spring 2021 Programming Technologies and Paradigms (CMSC433)
- Summer 2020 **Graduate Teaching Assistant**, University of Maryland, College Park.
Introduction to Data Science (CMSC320)

Skills

- Programming Languages and Frameworks Java, Python, Javascript, C++, C, Swift, SwiftUI, R, scikit-learn, Flask, Pandas, Numpy, Babel, ReactJS, D3.js, SQL
- Tools MYSQL Workbench, Git, GitLab, Jenkins, MongoDB, Microsoft Access, AWS, Tableau, PowerBI
- Operating Systems and Applications Linux, Android Studio, Parse

Extra-Curricular Activities

- 2021 Student volunteer at the IEEE Vis Conference
- 2020 Student volunteer at the Very Large Databases Conference(VLDB)
- 2019 Participated as an organizer for Conference on Systems Engineering (CSER) 2019
- 2016 Volunteer Computer Literacy Program for underprivileged children in Nigeria
- 2015 Served as Financial Secretary for the 2015 graduating class executives

References

- Dr. Leilani Battle**, *Advisor*, Department of Computer Science, University of Maryland, College Park.
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