

HANNAH K. BAKO

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ACADEMIC APPOINTMENTS

Assistant Professor
School of Data Science

University of Virginia
Aug 2025 - Present

EDUCATION

University of Maryland
PhD. in Computer Science

College Park, MD
Aug 2025

Stevens Institute of Technology
M.Sc. in Software Engineering

Hoboken, NJ
May 2019

Babcock University
B.Sc. in Computer Information systems

Ogun, Nigeria
June 2015

PROFESSIONAL EXPERIENCE

User Research Intern
User Research: Product Intelligence

Tableau
Summer 2022

Design and Visualization Intern
AI/ML Visualization Team

Apple
Summer 2021

Android UX Designer

N-Hub
Jan 2017 - Jul 2017

AWARDS AND RECOGNITION

Fellowships

UMD Summer Research Fellowship (\$5000)	2023
NSF Travel Grant (\$2850)	2023
CRA-WP Grad Cohort for Women Fellowship	2022
Dean's Fellowship, University of Maryland (\$2500/yr)	2019, 2020

Service

Special recognition for outstanding reviews	ACM CHI 2023
Special recognition for outstanding reviews	IEEE VIS 2023
Eagle Leadership Award, Babcock University	2015

TEACHING EXPERIENCE

Guest Lectures

Interactions: Theory, Taxonomies, and Applications	Oct 2024
CMSC 471: Introduction to Data Visualization	

Visualization Languages and Toolkits

CMSC 471: Introduction to Data Visualization	Apr 2023
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PUBLICATIONS

* Proceedings of IEEE VIS are published as a special issue of the flagship journal IEEE Transactions on Visualization and Computer Graphics (TVCG).

Journal Papers

- J3 **VisAnatomy: An SVG Chart Corpus with Fine-Grained Semantic Labels** [doi](#)
Chen Chen, [H.K. Bako](#), Peihong Yu, John Hooker, Simon C. Wang, Samuel Kim, Jessica Wu, Aouxue Ding, Lara Sandeep, Alex Chen, Chayanika Sinha, Zhicheng Liu
IEEE Transactions on Visualization and Computer Graphics
Proceedings of IEEE Visualization and Visual Analytics Conference (VIS '24).
- J2 **Unveiling how Examples Shape Data Visualization Design Outcomes** [doi](#)
[H.K. Bako](#), Xinyi Liu, Grace Ko, Hyemi Song, Leilani Battle and Zhicheng Liu
IEEE Transactions on Visualization and Computer Graphics
Proceedings of IEEE Visualization and Visual Analytics Conference (VIS '24).
- J1 **Understanding how Designers Find and Use Data Visualization Examples** [doi](#)
[H.K. Bako](#), Xinyi Liu, Leilani Battle, and Zhicheng Liu
IEEE Transactions on Visualization and Computer Graphics
Proceedings of IEEE Visualization and Visual Analytics Conference (VIS '22).

Conference Papers

- C4 **How Do Observable Users Decompose D3 Code? A Qualitative Study** [doi](#)
Melissa Lin, Heer Patel, Medina Lamkin, [H.K. Bako](#), Yuanjie Tu, Soham Raut, Leilani Battle
Proceedings of IEEE Visualization and Visual Analytics Conference (VIS '25)
- C3 **Evaluating the Semantic Profiling Abilities of LLMs for NL Utterances in Data Visualization** [doi](#)
[H.K. Bako](#), Arshnoor Bhutani, Xinyi Liu, Kwesi Cobinna, and Zhicheng Liu
Proceedings of IEEE Visualization and Visual Analytics Conference (VIS '24)
- C2 **User-Driven Support for Visualization Prototyping in D3** [doi](#)
[H.K. Bako](#), Alisha Varma, Anuoluwapo Faboro, Mahreen Haider, Favour Nerrise, Bissaka Kenah, John P Dickerson, and Leilani Battle
In Proceedings of the 28th International Conference on Intelligent User Interfaces (IUI '23)
- C1 **Streamlining Visualization Authoring in D3 Through User-Driven Templates** [doi](#)
[H.K. Bako](#), Alisha Varma, Anuoluwapo Faboro, Mahreen Haider, Favour Nerrise, Bissaka Kenah, and Leilani Battle
Proceedings of IEEE Visualization and Visual Analytics Conference (VIS '22)

Lightly Reviewed Papers and Articles

- L1 **Tweets and Social Network Data for Twitter Bot Analysis** [link](#)
Jennifer Golbeck, Niloofarsadat Alavi, [H.K. Bako](#), Saptarashmi Bandyopadhyay, Calvin Bao, et al.
Proceedings of SBP-BRIMS 2021: International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation.

INVITED TALKS

Bridging Data and Example-Aided Ideation: A Journey Through Data Visualization Design

Worcester Polytechnic Institute, <i>Department of Computer Science</i>	Feb. 2025
University of Maryland Baltimore County, <i>Department of Information Systems</i>	Feb. 2025
University of Virginia, <i>School of Data Science</i>	Feb. 2025
Tufts University, <i>Department of Computer Science</i>	Mar. 2025
University of North Carolina Charlotte, <i>Department of Computer Science</i>	Mar. 2025
Washington University in St. Louis, <i>Department of Computer Science</i>	Mar. 2025

ADVISING AND MENTORSHIP

Xiaoyu Liu , Ph.D. at UMD	Fall 2024 - Present
Ariya Mehra , UMD	Fall 2024 - Present
John Hooker , UMD	Summer 2024 - Present
Arshnoor Bhutani , UMD, worked on C3	Jan 2024 - Present
Heer Patel , UW, worked on C4	Fall 2022 - Dec 2024
Melissa Lin , CMU (REU intern at UW), worked on C4	Fall 2022 - Dec 2024
Xinyi Liu , UMD and UT-Austin, worked on J1, J2, & C3	Fall 2022 - Spring 2024
Grace Ko , UMD, worked on J2	Fall 2022 - Spring 2023
Alisha Varma , UMD, worked on C1 & C2	Spring 2020 - Summer 2022
Bisaka Kenah , UMD, worked on C1,& C2	Fall 2022 - Spring 2023
Anuoluwapo Faboro , UMD, worked on C1 & C2	Spring 2020 - Fall 2021
Mahreen Haider , UMD, worked on C1 & C2	Spring 2020 - Summer 2021
Favor Nerrise , UMD on C1 & C2	Spring 2021

PROFESSIONAL SERVICE

Program Committee

IEEE Visualization and Visual Analytics (VIS)	2025
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Reviews

IEEE Transactions on Visualization and Computer Graphics (TVCG)	2025
IEEE Visualization and Visual Analytics (VIS)	2023-2025
ACM Conference on Human Factors in Computing Systems (CHI)	2023-2025
IEEE Pacific Visualization Conference (PacificVIS)	2024
ACM Intelligent User Interfaces (IUI)	2024
ACM Creativity & Cognition	2022

Service

ACM Intelligent User Interfaces Conference (IUI), <i>student volunteer</i>	2023
IEEE Visualization and Visual Analytics (VIS), <i>student volunteer</i>	2021
Denson Summer Enrichment Program, <i>volunteer trainer</i>	2020
ACM Very Large Databases Conference (VLDB), <i>student volunteer</i>	2020
Conference on Systems Engineering (CSER), <i>student volunteer</i>	2019
African Students Association (Stevens Institute of Technology), <i>founding member</i>	2019
Graduating Class Student Representatives (Babcock University), <i>Financial Secretary</i>	2015