Mershack Okoe

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Education

Ph.D. Computer Science   Aug 2016
Florida International University, Miami, FL
Thesis Title*: Supporting Web-based and Crowdsourced Evaluations of Data Visualizations*
Advisor*: Radu Jianu*

M.S. Computer Science   Aug 2014
Florida International University, Miami, FL

M.S. Advanced Computing in Internet Computing with Multimedia   Oct 2009
University of Bristol, Bristol, UK
Thesis Title*: Visualizing 3D SCOP Protein Domains in Web browsers without Plugins*
Advisor*: Julian Gough*

B.S. Computer Science   Jul 2007
Kwame Nkrumah Univ. of Science and Technology, Kumasi, Ghana

Research Interests

Data Visualization, Visual Analytics, Human Computer Interaction.

Academic Employment

Adjunct Instructor   Sep 2016 – present
Miami Dade College, Miami, FL
- Taught Programming in C, and Database Concepts and Design.
- Mentored Computer Science students.
- Provided academic and career advisement to diverse groups of students.

Graduate Research and Teaching Assistant   Aug 2011 – Aug 2016
Florida International University, Miami, FL
- Performed Data Visualization Research.
- Designed and organized research experiments to observe how people use visualizations to solve tasks, and how to leverage the human visual system to create effective visualizations.
- Collaborated with interdisciplinary researchers to help them discover useful insights from their data.
- Taught and graded Programming in Java, Introduction to Programming, and Computer Data Analysis.
- Held office hours and tutorial sessions.

Lecturer   Oct 2009 – Aug 2011
Garden City University College , Kumasi, Ghana
- Taught Programming in Java, Programming in C++, Data Structures, and Human-Computer Interaction.
- Developed a curriculum for Human Computer Interaction
- Supervised and advised undergraduate senior research projects
- Was the examination officer for the Computer Science department.

Teaching Assistant   Aug 2007 – July 2008
Kwame Nkrumah Univ. of Science and Tech., Kumasi, Ghana
- Assisted with instructing and grading Programming in Java, Programming in Visual Basic.Net, Software Engineering, and Databases.
- Held office hours and tutorial sessions for undergraduate students.

Industrial Employment

Software Engineer   Nov 2016 – present
Tranzport Inc., Aventura, FL

- Interfaced with project owners and subject matter experts to generate requirements, and software design solutions (web and mobile) for a logistic management system.
- Developed production level Angular front-end designs, and Node API endpoints to handle requests and data management.
- Implemented database migrations, and functionalities for managing file storage on Google Cloud.
- Designed and developed a system for generating interactive visualizations of reports using D3.
- Implemented Support Vector Machine and K-Means algorithms to group Carriers and Shippers into different categories, and to recommend 'best-fit' Carriers to Shippers.

Honors and Awards

Best Paper Award, *25th International Symposium on Graph Drawing*   2017

Graduate and Professional Student Committee (GPSC) Travel Grant, *FIU*   2013 – 2015

Best Masters Graduate Poster Award, *University of Bristol*   2009

Peer Reviewed Publications

1. Mershack Okoe, Radu Jianu, Stephen Kobourov. Revisited Network Representations. In *25th Symposium on Graph Drawing*, 2017.
2. Angela R Laird, Michael C Riedel, Mershack Okoe, Radu Jianu, Kimberly L Ray, Simon B Eickhoff, Stephen M Smith, Peter T Fox, Matthew T Sutherland. Heterogeneous fractionation profiles of meta-analytic coactivation networks. In *NeuroImage*, 2017.

3. Mershack Okoe, and Radu Jianu. GraphUnit: Evaluating Interactive Graph Visualizations Using Crowdsourcing. In *Eurovis 2015* and *Computer Graphics Forum Journal (CGF)*, 2015.

4. Mershack Okoe and Radu Jianu. Ecological Validity in Quantitative User Studies – a Case Study in Graph Evaluation. In *IEEE VIS 2015 poster program,* 2015.

5. Mershack Okoe, Sayeed Safayet, and Radu Jianu. A Gaze-enabled Graph Visualization to Improve Graph Reading Tasks. In *Eurovis 2014* and *Computer Graphics Forum Journal (CGF),* 2014.

6. Mershack Okoe and Radu Jianu. VisUnit: Evaluating Interactive Graph Visualization Using CrowdSourcing. In *IEEE VIS 2014 poster program,* 2014.

7. Mershack Okoe, Sayeed Safayet, and Radu Jianu. Using Eye-Tracking as Interactive Input Enhances Graph Visualization. In *IEEE Visualization 2013 Poster Compendium,* 2013.

Talks

1. 25th Symposium on Graph Drawing, Boston   Sep 2017
Revisited Network Representations

2. Poster Presentation, IEEE VIS, Chicago   Oct 2015
Ecological Validity in Quantitative User Studies - a Case Study in Graph Evaluation

3. Graduate Student Seminar, Florida International University, Miami   Sep 2015
Ecological Validity in Quantitative User Studies - a Case Study in Graph Evaluation

4. Poster Presentation, IEEE VIS, Paris, France   Nov 2014
VisUnit: Evaluating Interactive Graph Visualizations Using Crowdsourcing

5. Poster Presentation, IEEE VIS, Atlanta   Oct 2013
Using Eye-Tracking as Interactive Input Enhances Graph Visualization

6. Graduate Student Seminar, Florida International University, Miami   Sep 2013
Enhancing Graph Visualization Using Eye-Tracking as an Interactive Input

Membership and Affiliations

1. Upsilon Pi Epsilon (Computer Science Honor Society)
2. Institute of Electrical and Electronics Engineers (IEEE)
3. Institute of Electrical and Electronics Engineers Computer Society (IEEECS)
4. Association for Computing Machinery (ACM)
5. National Society of Black Engineers (NSBE).