Alexander C. Nwala

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Research interests

Web Science, Web Archiving, Social Media, NLP, Machine Learning.

Education

2014 – 2020	**Ph.D. Computer Science Old Dominion University (ODU)**, *Norfolk, Virginia*, USA. Thesis: Bootstrapping Web Archive Collections From Micro-Collections In Social Media.
2012 – 2014	**M.S. Computer Science Old Dominion University**, *Norfolk, Virginia*, USA. Thesis: Generating Combinatorial Objects - A New Perspective, Summa Cum Laude
2008 – 2011	**B.S. Computer Science (Minor: Aviation Science) Elizabeth City State University**, *Elizabeth City, North Carolina*, USA. Summa Cum Laude

Appointments

May 2014 - Present	**Research Assistant, WS-DL group, ODU**.
June - August 2016	**Summer Fellow, Harvard Law School Library Innovation Lab**.
June - August 2017	**Intern, The Berkman Klein Center, Harvard University**.
May 2012 – May 2014	**Research Assistant, Old Dominion University**. ○ Designed and Implemented Tracking/Path Comparison Algorithms used in an Automated Medical Mentoring System to teach medical students procedures such as Intubation ○ Lab leader to 12 Developers at Handson Networks Lab at Old Dominion University ○ Led projects to Develop Security Simulation Software in Kepler, under-water apparatus to study Bacteria using Raspberry Pi, and Real Estate Management System
Summer 2009 – 2011	**Summer Intern, North Carolina Department of Transportation**. ○ Conducted Unmanned Aerial System research/ Programmed Unmanned Aerial Vehicle ○ Developed/Implemented Algorithm to enumerate North Carolina License Plate Number System ○ Taught a class of 16 high school students C++

Teaching

Old Dominion University

CS 432/532	**Web Science - S18/S19**.
CS 150	**Introduction to Programming with C++ - July - November 2018**. Volunteer C++ Instructor for Middle/High School Students (ages 11 - 16)
CS 333/CS 250	**Programming and Problem Solving in C++ - F14, S15, F15**. Teaching Assistant/Lab Instructor

Elizabeth City State University

College Algebra, Linear Algebra, Calculus I/II, C++, JAVA, Data Structures/Algorithms, Computer Architecture, etc. - S09, F11.
Tutor, Department of General Education

Software

○ Implemented: StoryGraph (Real-time news Story Link Detection), Github
○ Implemented: Local Memory Project (Local news collection generator), Github
○ Implemented: #icanhazmemento (URL archiving Twitter-bot), Github
○ Implemented: http://whatdiditlooklike.mementoweb.org/ (Twitter-bot/Visualize website yearly), Github
○ Refactored: Carbon Date v2.0 (Estimates the creation date of website), Github

Computer skills

Languages	Python, C++, C#, Java, Assembly Language, PHP, JavaScript, HTML, MySQL, etc.
Technologies/APIs	Twitter API, Tumblr API, D3.js, Microsoft Kinect SDK, Weka, etc.

Google Scholar

Google scholar (Citations: 22, h-index: 3): `https://scholar.google.com/citations?user=LqrUey4AAAAJ&hl=en`

Publications - Journals

[1] Eoin C Whelan, Alexander C Nwala, Christopher Osgood, and Stephan Olariu. Selective mutation accumulation: a computational model of the paternal age effect. *Bioinformatics*, 32(24):3790–3797, 2016.

[2] Wu He, Ashish Kshirsagar, Alexander Nwala, and Yaohang Li. Teaching information security with workflow technology–a case study approach. *Journal of Information Systems Education*, 25(3), 2014.

Publications - Refereed Conference Proceedings

[1] Alexander C Nwala, Michele C Weigle, and Michael L Nelson. Using Micro-collections in Social Media to Generate Seeds for Web Archive Collections. In *Proceedings of ACM/IEEE Joint Conference on Digital Libraries (JCDL 2019)*, 2019.

[2] Alexander C. Nwala, Michele C. Weigle, and Michael L. Nelson. Scraping SERPs for Archival Seeds: It Matters When You Start. In *JCDL '18: Proceedings of the 17th ACM/IEEE-CS Joint Conference on Digital Libraries*, pages 263–272, 2018.

[3] Alexander C. Nwala, Michele C. Weigle, and Michael L. Nelson. Bootstrapping Web Archive Collections from Social Media. In *HT '18: Proceedings of ACM ACM Conference on Hypertext and Social Media*, pages 64–72, 2018.

[4] Shawn M. Jones, Alexander C. Nwala, Michele C. Weigle, and Michael L. Nelson. The many shapes of Archive-It. In *Proceedings of iPres*, 2018.

[5] Grant Atkins, Alexander C. Nwala, Michele C. Weigle, and Michael L. Nelson. Measuring News Similarity Across Ten U.S. News Sites. In *Proceedings of iPres*, 2018.

[6] Alexander C. Nwala, Michele C. Weigle, Michael L. Nelson, Adam B. Ziegler, and Anastasia Aizman. Local Memory Project: Providing tools to build collections of stories for local events from local sources. In *JCDL '17: Proceedings of the 17th ACM/IEEE-CS Joint Conference on Digital Libraries*, pages 219–228, 2017.

[7] Alexander Nwala and Michael L. Nelson. A supervised learning algorithm for binary domain classification of web queries using SERPs. In *JCDL '16: Proceedings of the 16th ACM/IEEE-CS Joint Conference on Digital Libraries*, pages 237–238, 2016.

Publications - Blog posts

2019-03-05	365 dots in 2018 - top news stories of 2018
2018-08-14	Revealing Data: Why We Need Humans To Curate Web Collections
2018-07-18	HyperText and Social Media (HT) Trip Report
2018-06-08	Joint Conference on Digital Libraries (JCDL) 2018 Trip Report
2018-05-04	An exploration of URL diversity measures
2018-03-04	Installing Stanford CoreNLP in a Docker Container
2017-08-27	Media Manipulation research at the Berkman Klein Center at Harvard University Trip Report
2017-06-29	Joint Conference on Digital Libraries (JCDL) 2017 Trip Report
2017-04-18	Local Memory Project - going global
2017-03-20	A survey of 5 boilerplate removal methods
2017-01-23	Finding URLs on Twitter - A simple recommendation
2016-11-16	Introducing the Local Memory Project
2016-10-26	A look back at the 2008 and 2012 US General Elections via Web Archives
2016-09-09	Summer Fellowship at the Harvard Library Innovation Lab Trip Report
2016-07-18	Tweet Visibility Dynamics in a Tweet Conversation Graph