

Mohamed ATURBAN

CONTACT INFORMATION

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EDUCATION

AUGUST 2020	Ph.D. in COMPUTER SCIENCE Old Dominion University , Norfolk, Virginia, USA <i>Dissertation: A Framework for Verifying the Fixity of Archived Web Resources</i> Advisor: Dr. Michele WEIGLE Co-Advisor: Dr. Michael NELSON GPA: 4.0
MAY 2011	M.S. in COMPUTER SCIENCE New Mexico State University , Las Cruces, New Mexico, USA <i>Masters Project: Implementing A Workflow System For Computation-Based Scientific Experiments Using The NetBeans IDE And GlassFish Application Server</i> Advisor: Dr. Jonathan COOK GPA: 3.83
DECEMBER 2007	GRADUATE DIPLOMA in COMPUTER SCIENCE University of Tripoli , Tripoli, Libya
MAY 2002	B.S. in COMPUTER SCIENCE University of Tripoli , Tripoli, Libya

WORK EXPERIENCE

(1) Aug 2020 - present	Assistant Professor <i>Computer and Mathematical Sciences Department, Columbia College, Missouri</i> I have taught the following courses: Introduction to Python Programming, Introduction to Programming, Compiler Construction, Java Programming, Advanced Programming C++, Operating Systems, Object-Oriented Analysis and Design
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(2)	Research Assistant
<i>Aug 2016 - Aug 2020</i>	<i>Department of Computer Science, Old Dominion University</i> Project: A Framework for Verifying the Fixity of Archived Web Resources Advisor: Dr. Michele WEIGLE and Dr. Michael NELSON
<i>Jan 2011 - May 2012</i>	<i>Department of Computer Science, New Mexico State University</i> Project: Coordinated Infrastructure for Fault Tolerant Systems Advisor: Dr. Jonathan Cook
(3)	Teaching Assistant
<i>Jan 2015 - Aug 2016</i>	<i>Department of Computer Science, Old Dominion University</i> Courses: Programming and Problem Solving in C++ (online course instructor), Cyber-Security Fundamentals (online), Information Visualization, Computer Architecture I, Introduction to Discrete Structures, Introduction to Networks and Communications
<i>Aug 2011 - May 2012</i>	<i>Department of Computer Science, New Mexico State University</i> Courses: Software Development, Operating Systems, Object Oriented Programming in C++
<i>Jan 2003 - Mar 2008</i>	<i>Department of Computer Science, University of Tripoli</i> Courses: FORTRAN, C, C++, Computer Fundamentals
(4)	Software Engineer
<i>Jun 2003 - Aug 2006</i>	<i>Tatweer (Acer Authorized Service Provider), Ben Ashour Street, Tripoli, Libya</i> APPLICATIONS: <ul style="list-style-type: none"> • University Registrar's System: currently used in the CS Dept at University of Tripoli, and the Higher Institute of Engineering, Houn, Libya • Banking/Loan System: for National Banking Corporation, Libya • Vehicle Record System, Auto Parts System, and Supply Warehouse System: currently used at the Libyan Ministry of Justice and Public Security, and Civil Affairs Agency • Automated System for Assigning High School Students to Higher Education Institutions: Year 2005/2006 for Libyan Ministry of Higher education and Libyan Ministry of Labor • Thesis/Dissertation Record System for Libyan Ministry of Higher education

PUBLICATION

1. M. Aturban, M. L. Nelson and M. C. Weigle, "Where Did the Web Archive Go?" In Proceedings of the Theory and Practice of Digital Libraries Conference (TPDL 2021). September 13-17 2021 (**Best Paper Award**)
2. M. Aturban, S. Alam, M. L. Nelson and M. C. Weigle, "Archive Assisted Archival Fixity Verification Framework" In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL). Urbana-Champaign, Illinois, June 2019, pp. 162-171
3. M. Aturban, M. Kelly, S. Alam, J. A. Berlin, M. L. Nelson and M. C. Weigle, "ArchiveNow: Simplified, Extensible, Multi-Archive Preservation" In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL). Fort Worth, TX, June 2018, pp. 321-322 (**Best Poster Award**)
4. M. Aturban, M. L. Nelson and M. C. Weigle, "Quantifying Orphaned Annotations in Hypothes.is," In Proceedings of the Theory and Practice of Digital Libraries Conference (TPDL). Poznan, Poland, September 2015, pp. 15-27

5. B. Terzic, K. Arumugam, M. Aturban, C. Cotnoir, A. Godunov, D. Ranjan, M. Stefani, F. Lin, V. Morozov, Y. Roblin and H. Zhang, "High-Fidelity Simulations of Long-Term Beam-Beam Dynamics on GPUs" 12th International Computational Accelerator Physics Conference (ICAP), Shanghai, 2015, pp. 40-43
6. B. Terzic, V. Morozov, Y. Roblin, F. Lin, H. Zhang, M. Aturban, D. Ranjan and M. Zubair, "GPU-Accelerated Long-Term Simulations of Beam-Beam Effects in Colliders", 5th International Particle Accelerator Conference (ICAP), Dresden, 2014, pp. 77-79
7. Y. Roblin, V. Morozov, B. Terzic, M. Aturban, D. Ranjan and M. Zubair, "GPU-optimized Code for Long-term Simulations of Beam-beam Effects in Colliders", 4th International Particle Accelerator Conference (ICAP), Shanghai, 2013, pp. 1064-1066

REPORTS

1. M. Aturban, "A Framework for Verifying the Fixity of Archived Web Resources," Doctor of Philosophy (PhD), Dissertation, Computer Science, Old Dominion University, DOI: 10.25777/pc8d-y213, 2020, https://digitalcommons.odu.edu/computerscience_etds/125
2. M. Aturban, S. Alam, M. L. Nelson and M. C. Weigle, "Archive Assisted Archival Fixity Verification Framework," Technical Report arXiv:1905.12565, 2019, <https://arxiv.org/abs/1905.12565>
3. M. Aturban, M. L. Nelson, M. C. Weigle, M. Klein and H. Van de Sompel, "Collecting 16K archived web pages from 17 public web archives," Technical Report arXiv:1905.03836, 2019, <https://arxiv.org/abs/1905.03836>
4. M. Aturban, M. L. Nelson and M. C. Weigle, "Difficulties of Timestamping Archived Web Pages," . Tech. Rep. arXiv:1712.03140 (2017), <https://arxiv.org/abs/1712.03140>
5. M. Aturban, M. L. Nelson and M. C. Weigle, "Quantifying Orphaned Annotations in Hypothes.is," Technical Report arXiv:1512.06195, 2015, <https://arxiv.org/abs/1512.06195>

WORKSHOPS, PARTICIPATION, AND CONFERENCE PRESENTATIONS

1. M. Aturban, M. L. Nelson and M. C. Weigle, "Where Did the Web Archive Go? In Proceedings of the Theory and Practice of Digital Libraries Conference (TPDL 2021). September 13-17 2021
2. Mohamed Aturban, "It is hard to compute fixity on archived web pages," Presented at the monthly PhD Gathering, Department of Computer Science, Old Dominion University, January 2019, <https://www.slideshare.net/maturban/it-is-hard-to-compute-fixity-on-archived-web-pages-128916126>
3. Mohamed Aturban, "Establishing and Verifying Fixity of Archived Web Pages," at the ACM/IEEE Joint Conference on Digital Libraries (JCDL), Doctoral Consortium, Fort Worth, Texas, USA, 2018, <https://www.slideshare.net/maturban/establishing-and-verifying-fixity-of-archived-web-pages-101662832>

4. Mohamed Aturban, Michael L. Nelson, and Michele C. Weigle, "It is hard to compute fixity on archived web pages," Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2018, <https://www.slideshare.net/maturban/it-is-hard-to-compute-fixity-on-archived-web-pages-101663904>
5. Archives Unleashed 3.0: Web Archive Datathon, February 2017, Internet Archive, San Francisco, CA. Team project: End of Term Transition (Best project award) <https://ws-dl.blogspot.com/2017/03/2017-03-7-archives-unleashed-30-web.html>
6. Archives Unleashed 2.0: Web Archive Datathon, June 2016, Library of Congress, Washington DC. Team project: Which States and Topics did the Two Presidential Candidates Mention? <https://ws-dl.blogspot.com/2016/06/2016-06-27-archives-unleashed-20-web.html>

BLOG POSTS

1. M. Aturban, "A PhD is a very long tunnel with a light at the end," <https://ws-dl.blogspot.com/2020/09/2020-09-28-phd-is-very-long-tunnel-with.html>, 2020
2. M. Aturban, "Where did the archive go? Part 4: WebCite," <https://ws-dl.blogspot.com/2019/10/2019-10-21-where-did-archive-go-part-4.html>, 2019
3. M. Aturban, "Where did the archive go? Part 3: Public Record Office of Northern Ireland," <https://ws-dl.blogspot.com/2019/09/2019-09-25-where-did-archive-go-part-3.html>, 2019
4. M. Aturban, "Where did the archive go? Part 2: National Library of Ireland," <https://ws-dl.blogspot.com/2019/09/2019-09-10-where-did-archive-go-part-2.html>, 2019
5. M. Aturban, "Where did the archive go? Part 1: Library and Archives Canada," <https://ws-dl.blogspot.com/2019/08/2019-08-30-where-did-archive-go-part1.html>, 2019
6. M. Aturban, "Difficulties in timestamping archived web pages," <http://ws-dl.blogspot.com/2017/12/2017-12-11-difficulties-in-timestamping.html>, 2017
7. M. Aturban, "Archive Now (archivenow): A Python Library to Integrate On-Demand Archives," <http://ws-dl.blogspot.com/2017/02/2017-02-22-archive-now-archivenow.html>, 2017
8. M. Aturban, "Summary of Trusty URIs: Verifiable, Immutable, and Permanent Digital Artifacts for Linked Data," <http://ws-dl.blogspot.com/2017/01/2017-01-15-summary-of-trusty-uris.html>, 2017
9. M. Aturban, "Pro-Gaddafi Digital Newspapers Disappeared from the Live Web!," <http://ws-dl.blogspot.com/2016/11/2016-11-05-pro-gaddafi-digital.html>, 2016
10. M. Aturban, "Which States and Topics did the Two Presidential Candidates Mention?," <http://ws-dl.blogspot.com/2016/10/2016-10-03-which-states-and-topics-did.html>, 2016
11. M. Aturban, "Archives Unleashed 2.0 Web Archive Hackathon Trip Report," <http://ws-dl.blogspot.com/2016/06/2016-06-27-archives-unleashed-20-web.html>, 2016

12. M. Aturban, "60% of Web Annotations are Orphaned or in Danger of Being Orphaned," <http://ws-dl.blogspot.com/2015/10/2015-12-22-60-of-web-annotations-are.html>, 2015
13. M. Aturban, "WARCMerge: Merging Multiple WARC files into a single WARC file," <http://ws-dl.blogspot.com/2014/09/2014-09-02-warcmmerge-merging-multiple.html>, 2014

SCHOLARSHIPS AND HONORS

APR 2016 - PRESENT	The Honor Society of Phi Kappa Phi
SEPT 2021	Best Research Paper Award, TPDL 2021
JUN 2018	Best Poster Award, ACM/IEEE JCDL 2018
APR 2018	2018 Scholarship Recipient, College of Science, Old Dominion University
FEB 2018	Best Project Award, Archives Unleashed 3.0, Internet Archive, San Francisco, CA
FEB 2012 - JUL 2017	Graduate Scholarship Award: Libyan Ministry of Higher Education and Scientific Research (MOHESR) (PhD)
MAR 2008 - MAY 2011	Graduate Scholarship Award: Libyan Ministry of Higher Education and Scientific Research (MOHESR) (MSc)

SOFTWARE

1. M. Aturban, "**ArchiveNow**: A Tool To Push Web Resources Into Web Archives," <https://github.com/oduwsdl/archivenow>, 2017. (251 stars on GitHub)
2. M. Aturban, "**WARCMerge** : A Tool to merge multiple WARC files into a single WARC file," <https://github.com/maturban/WARCMerge>, 2014. (10 stars on GitHub)

RESEARCH

OPEN-SOURCE PROGRAMMING, WEB ANNOTATION, WEB ARCHIVING, DIGITAL LIBRARIES, DATA SCIENCE, AUDITING & FIXITY, HPC, CYBERSECURITY

PROGRAMMING

PYTHON, C/C++, JAVA, HTML, JAVASCRIPT, CSS, PHP, MYSQL, ORACLE/SQL*PLUS, D3.JS, CUDA, SHELL SCRIPT, DOCKER, R, FORTRAN, DELPHI, BPEL, OCAML