CLIFFORD B. ANDERSON

INFORMATION SCIENCE PROFESSIONAL

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📱 609-638-8545

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🗣 Fluent: English (Native)
Advanced: Dutch, German
Intermediate: Chinese, French

AREAS of EXPERTISE

Cloud Computing

Data Analytics

Digital Strategy

Program Management

Software Engineering

XML-Based Publishing

EDUCATION

Master of Science (M.S.)
Library & Information Science
Pratt Institute
2012

Doctor of Philosophy (Ph.D.)
Princeton Theological Seminary
2005

Master of Theology (Th.M.)
Princeton Theological Seminary
1996

Master of Divinity (M.Div.)
Harvard Divinity School
1995

Bachelor of Arts (A.B.)
Philosophy
Kenyon College
1992

PROFESSIONAL SUMMARY

Driven and enthusiastic information science advocate with twenty years' experience investigating, implementing, and promoting innovative technologies for research and learning. Considerable experience developing and delivering computational solutions across a variety of platforms to meet established and emerging business and research needs.

PROFESSIONAL APPOINTMENTS

ASSOCIATE UNIVERSITY LIBRARIAN   07/2019 – Present
Research and Digital Strategy
Jean and Alexander Heard Library, Vanderbilt University, Nashville, TN

Lead digital strategy for the university libraries and take responsibility for three units fostering digital research and instruction: Digital Scholarship and Communications, the Visual Resources Center, and the Vanderbilt Television News Archive. Manage a $1.4M budget and lead 3 direct reports, 8 indirect reports, and student workers.

Key Initiatives

- **Customer Relationship Management**. Implemented Salesforce CRM at the Vanderbilt Television News Archive, increasing engagement and retention.
- **Digital Imaging Lab**. Equipped and staffed digital imaging lab to teach cutting-edge techniques in 2D and 3D imaging to faculty and graduate students.
- **Digital Asset Management**. Implemented new platforms for managing digital access and preservation, increasing web metrics of key digital resources.
- **Massive Open Online Course**. Creating course on Coursera titled "Programming for a Networked World" to introduce core concepts in computer science with a focus on RPCs and peer-to-peer networking.
- **Text Mining**. Co-lead a research team of faculty and undergraduate fellows applying natural language processing models to study patterns in periodical literature using a large-scale cluster-computing environment; technologies taught include Apache Spark, AWS EMR, Databricks, Databricks SQL, PySpark, Scala, John Snow Lab NLP, XQuery, JSONiq, and RumbleDB.
- **XML-Based Publishing**. Collaborate with faculty on support and development of XML-based publishing workflows in the AWS Cloud; serve as instructor at NEH Institute for Advanced Topics in the Digital Humanities titled *Advanced Digital Editing: Modeling the Text and Making the Edition* (July 2022).

ADJUNCT PROFESSOR   08/2018 – 08/2020
Electrical Engineering and Computer Science
School of Engineering, Vanderbilt University, Nashville, TN

Inaugurated and taught several semesters of an introductory computer science course for undergraduates, covering core concepts of computing, including abstraction, algorithms, control structures, computational complexity, events, distributed computation, higher-order functions, recursion, and program design.

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SELECTED CERTIFICATES

AWS Certified Cloud Practitioner, 2021

From Media Computation to Data Science
openSAP, 2020

Julia Scientific Programming
University of Cape Town, Coursera, 2017

Graph Analytics for Big Data
University of California San Diego, Coursera, 2016

Introduction to R Programming
Microsoft, EdX, 2015

Pattern-Oriented Software Architecture for Concurrent & Networked Software
Vanderbilt, Coursera, 2013

Computing for Data Analysis
Johns Hopkins, Coursera, 2013

Certified Scrum Master
Scrum Alliance, 2009

Certificate in Intellectual Property Law, School of Professional Studies, New York University, 2009

DIGITAL SKILLS

Languages: Cypher, JavaScript, NetsBlox, Python, Snap!, SPARQL, SQL, R

Applications: Adobe Creative Cloud, ArcGIS, MapBox, Omeka, Overleaf

Databases: CouchDB, BaseX, eXist, Neo4j, RumbleDB

Frameworks: Apache Spark, AWS Elastic Map Reduce, Databricks, Databricks SQL

Tools: BibTeX, git, GitHub, Hugging Face, John Snow Labs NLP, LaTeX, oXygen, ngrok, pandoc, Twilio

XML Standards: XPath, XML Schema, RelaxNG, Schematron, XQuery, XSLT

RESEARCH AND TEACHING

SELECTED PUBLICATIONS

- Anderson, Clifford B., and Joseph C. Wicentowski. **XQuery for Humanists**. College Station: Texas A&M University Press, 2020.
- Anderson, Clifford B. "**Preservation and Archiving of Digital Media**." *Information Services & Use* 40 (January 2020): 201–208.
- Anderson, Clifford B., and Hilary A. Craiglow, "**Text Mining in Business Libraries**," *Journal of Business and Finance Librarianship* 22 (2017): 149-165.
- Anderson, Clifford B. "**On Teaching XQuery to Digital Humanists**," *Proceedings of Balisage: The Markup Conference* 13 (2014).
- Anderson, Clifford B. "**What Librarians Can Learn About Project Management from Software Engineers**," *Atla Summary of Proceedings* 65 (2011): 331–340.

SELECTED PRESENTATIONS

- Anderson, Clifford B., Brian Broll, Corey Brady, and Mark Schoenfield, "**From NetsBlox to Spark...and Back Again**," *Snap!Con 2021* (July 29, 2021)
- Anderson, Clifford B., "**The Ethics of (Digital Humanities) Algorithms: Toward a Code of Ethics for Algorithms in the Digital Humanities**," *Association for Computers and the Humanities 2019*, Pittsburgh, PA (July 23, 2019)
- Anderson, Clifford B., and Lynn Ramey, "**Thinking Computationally in the Digital Humanities: Toward Block-Based Programming for Humanists**," *Digital Humanities 2019*, Utrecht, The Netherlands (July 12, 2019)
- Anderson, Clifford B., "**Experiments in Digital Privacy Education**," *Information Ethics, Freedom, and Integrity*, National Information Standards Organization (NISO) Virtual Conference (April 18, 2018)
- Anderson, Clifford B., "**Exploring XBRL for Historic Financial Data**," Modeling Semantically Enhanced Digital Editions of Accounts (MEDEA), *NEH-DFG Bilateral Digital Humanities Program*, Wheaton, MA (April 8, 2016)

SELECTED COURSES

- CMA 1001: **Retro-Computing** (co-taught with Lutz Koepnick, Professor of Cinema and Media Arts), Spring 2022
- CMAP 8002: **History of Media** (co-taught with Jessie Hock, Claire Sisco King, Lutz Koepnick, and Kevin Leander), Spring 2021
- CS 1000: **The Beauty and Joy of Computing**, Fall 2018, Spring 2019, Fall 2019

SELECTED GRANTS

- Co-Principal Investigator (with Jason Cohen, Mario Nakazawa, and Mark Schoenfield), **Text Mining for the Humanities**, Mellon Partners for Humanities Education Collaborative Grant, Vanderbilt University, 2019-2020
- Co-Principal Investigator (with Ole Molvig), **Algorithms as Artifacts**, Vanderbilt Institute for Digital Learning (VIDL) Macrogrant, Vanderbilt University, 2018
- Director, "**XQuery Summer Institute: Advancing XML-Based Scholarship from Representation to Discovery**," Institute for Advanced Topics in the Digital Humanities, National Endowment for the Humanities, 2013-2014

VOLUNTEER ACTIVITIES

Wikimedia and Libraries User Group
Steering Committee Member