Patrick Herron
Curriculum Vitae

Senior Research Scientist
Information Science + Studies
Duke University
Smith Warehouse Bay 11-A241, 114 S.
Buchanan Blvd.
Durham, NC 27708-0766
http://jenkins.duke.edu/patrick.php
patrick.h@duke.edu

Residence:
1301 Carolina Avenue
Durham, NC 27705-3205
http://patrickherron.com
pherron@proximate.org
+1 (919) 259-2957

EDUCATION

The University of North Carolina School of Information and Library Science,
Chapel Hill, NC
Master of Science in Information Science (M.S.I.S.), with Computer Science Minor and
Graduate Certificate of Specialization in Bioinformatics, Dec 2006
Thesis Advisor: Stephanie W. Haas

North Carolina State University, Raleigh, NC
Post-baccalaureate undergraduate studies & graduate studies in Biochemistry and Genetics,
1994-1996

The University of North Carolina, Chapel Hill, NC
AB Honors Philosophy, Dec 1993
Thesis Advisor: Simon Blackburn

EXPERIENCE

Duke University, Durham, NC, US
Senior Research Scientist, Information Science + Studies. Sep 2015-present.
Senior Research Scientist, University Professors/Kimberly J. Jenkins Chair for New Technologies
in Society (Timothy Lenoir), Jul 2014-Aug 2015
Senior IT Analyst, Jenkins Chair. Apr 2011-Jun 2014.
IT Analyst, Jenkins Chair. Aug 2007-Apr 2011.

Notable Duties and Contributions
1. Expert contributor. *Report to the President and Congress on the Fourth Assessment of
   the National Nanotechnology Initiative.* Executive Office of the President of the United
   States President's Council of Advisors on Science and Technology, Apr 2012.
   http://whitehouse.gov/

sites/default/files/microsites/ostp/PCAST_2012_Nanotechnology_FINAL.pdf

2. Nanotechnology & Innovation System Analysis. Analysis of global nanotechnology collaboration, diffusion, policies, research practices, commercialization and private investment using scientometrics, bibliometrics, informetrics, text mining, web mining, social network analysis, and value chain analysis. Work supported since Aug 2007 by the Center for Nanotechnology in Society at the University of California at Santa Barbara (CNS-UCSB) funded by the National Science Foundation, and since Oct 2012 by the Center for the Environmental Implications of Nanotechnology (CEINT) at Duke.

3. Data science and database development. Developed a large database and analytics platform, *GLOBONANO*, for mining, locating, and analyzing scientific research literature, international patents, private investments, commercialization, and corporate activity. Includes a social network visualization application.

4. Art Markets. Co-PI of *Fantasy Collecting*, a web-based gamification platform of art markets and preference modeling for the Duke Art, Law & Markets Initiative (DALMI).

5. Teaching. New media theory and practice courses in Information Science + Information Studies, Literature, Media Arts + Studies, MFA in Experimental and Documentary Arts, and Visual + Media Studies.

6. Serve as staff or listed as faculty in the following Duke academic organizations: University Professors—Kimberly J. Jenkins Chair for New Technologies in Society (staff); Art, Art History and Visual Studies (staff); MFA-Experimental and Documentary Arts (faculty); Information Science + Information Studies; Media Arts + Sciences; Duke Art, Law and Markets Initiative (DALMI).

7. Data visualization. Developed novel methods for visualizing accelerating and decelerating trends in text corpora and for viewing clustered historiographic genealogies of patent platforms.

8. Research personnel management. Manage a team of several employees, student research assistants and visiting scholars for several research & development projects.

9. Culture Mining. Designed and continue to develop an ensemble of analysis tools including social network analysis tools to analyze the informational flows of global culture. Work included the development of a Twitter tracker and analyzer in 2010.

10. Technical consultant. Provided technical consultation for a patent retrieval and visualization company spin-off, providing best-in-class clustering and on-the-fly ontology-generating text mining algorithms.

11. Game development. Principal on the development of *Fantasy Collecting* (2013), a game for teaching fundamental concepts in art markets, and managed the development of *Virtual Peace* (2008) including lead on the *Virtual Peace* instructional website. *Virtual Peace* was a MacArthur-funded immersive simulation designed for training relief workers on negotiation of resource allocation.

12. Software development. Currently write code in sed, awk, bash, Java, and Python.

13. Database administrator. Administrator of a large MySQL database.

14. Systems administrator. Administrator of four CentOS Linux servers, one Xserve server, seven OSX client systems, and four Windows systems.

15. Audiovisual systems design and implementation. Designed, purchased and implemented an all-purpose and highly flexible technology studies laboratory & classroom with four stations for student game play, game play capture. Includes reconfigurable workstations. Designed and constructed a state-of-the-art game capture system to record live game play from consoles and computers alike in High Definition (HD) format.
16. Admissions committee, Master of Fine Arts in Experimental and Documentary Arts (MFAEDA).

SAS Institute, Cary, NC, US

Technical Student / Enterprise Architect, Jun 2006—Aug 2006.
1. Innovated advanced solutions for information architecture & search engine optimization (SEO) tasks for entire support.sas.com site still in use by SAS Global website.
2. Designed dynamic classification & navigation system prototypes for entire SAS website.
3. Constructed content analysis & search term analysis suite for automatic generation of global website information architecture in Java & MySQL.

Ibiblio, The University of North Carolina at Chapel Hill, Chapel Hill, NC, US

Student Research Assistant / Developer, Aug 2003—Aug 2005.
1. Developed utilities for 3-D book reader application in Java, XSL, and sed.
2. Reverse-engineered & restored archaeological excavation educational software, *Excavating Occaneechi Town*, in Java.
3. Linux systems administration for hosting services.

The IT Coop / Hypothia, Chapel Hill, NC, US

Information Architect, Jan 2002—Dec 2006.
> Provided information architecture, web development, & web design services.

TManage, Inc., Austin, TX, US and Chapel Hill, NC, US

Systems Integration Developer, Jan 2000—Nov 2001.
1. As first outside hire of a large telecommunications startup, developed sales forecasting software.
2. Developed, supported, and extended enterprise B2B data integration system in Java, XML, and Oracle as XSL technical lead.

Integrated Laboratory Systems (Contractor with National Institute of Environmental Health Science), RTP, NC, US

Web Operations Manager, Apr 1998—Jan 2000.
1. Designed, developed, and supported organization's website for onsite Federal contract.
2. Organized new Federal health policy agencies focused on toxicological testing methods regulation.

Kelly Technical Services (Contractor with **Nortel**), RTP, NC
Technical Writer, Sep 1997—Apr 1998.
>   Re-engineered enterprise-wide computing migration process for 13,000 customers leading to early project completion and $500k savings.

National Institute of Environmental Health Science, RTP, NC
Student Internship, Laboratory Technician, May 1996—Jun 1997.
>   Performed genetics toxicology experiments, developed research protocols and reviewed research literature.

United States Postal Service Network Service Center, Raleigh, NC
C/DCAP Specialist May 1995—May 1996
>   Supported construction of the first national USPS facilities relational database.

TV Guide, Radnor, PA
Assistant Editorial Supervisor Jun 1993—Nov 1994
>   Magazine editor.

PUBLICATIONS, WORKS AND EXHIBITIONS

Books, Refereed Journal Articles and Submitted Manuscripts

1. "Research Diversification and Impact: The Case of National Nanoscience Development," with Aashish Mehta, Cong Cao and Timothy Lenoir. Under review at *Scientometrics*, 2016. A preview of an earlier draft is available at SSRN: http://ssrn.com/abstract=2359278 or http://dx.doi.org/10.2139/ssrn.2359278.
2. "The NCI and the Takeoff of Nanomedicine," with Tim Lenoir. *Journal of Nanomedicine & Biotherapeutic Discovery* 5 (135), 2. 2015.
3. "Globalization and de-globalization in nanotechnology research: the role of China," with Aashish Mehta, Yasuyuki Motoyama, Richard Appelbaum and Tim Lenoir. *Scientometrics* 93, 439-458, 2012.
4. "Tracking the Current Rise of Chinese Pharmaceutical Bionanotechnology," with Tim Lenoir. *Journal of Biomedical Discovery and Collaboration* 4, Sep 2009.
5. *Text Mining for Genomics-based Drug Discovery*. VDM Verlag Dr. Mueller, Apr 2008.
6. *Be Somebody*, by Lester. (Heteronymous work.) Effing Press, Austin, TX, 2008.
7. *The American Godwar Complex*. BlazeVOX Press, Buffalo, New York, 2004.
8. *Three Poems* (chapbook). New Vaudeville Press, 2004.
9. *Nocturnal Heliotrope.* Oasii Broadside series, no. 70d. Oasia Press, Portland, ME, 2000.
10. *Here Comes Everybody*. Interview. BlazeVOX Press, Buffalo, NY. Eds. Lance Phillips and Geoffrey Gatza. Mar 2007.
11. "Ruthven's Faking Literature, Forging Literature and Faking Forged Literature." *Jacket*, Issue 17, Jun 2002. http://www.jacketmagazine.com/17/index.html.
12. *100 Days*. Poem, "Narcoleptic Bicyclists." ed. Andrea Brady. Barque Press, Cambridge, UK. Apr 2001. (Favorably reviewed in the London Guardian, 16 Jun 2001.

http://www.guardian.co.uk/books/2001/jun/16/politics)
13. "Poetic Radicalism in the Internet Age." *VeRT*, Issue #4, Summer 2001. http://www.litvert.com/issuefour.html.
14. "p r o x i m a t e." Readme, Issue 3, Summer 2000. http://home.jps.net/~nada/issuethree.htm.

Digital Media, Software and Web Publications

1. GLOBONANO nanotechnology knowledge and lifecycle platform. With Tim Lenoir, Ben Weiss, Aaron McGuire, Evan Donahue, Lanceton Dsouza, Mathew Thomas, Yilun Zhou, Kevin He, Justin Carrao, Alex Park, Yuzhou Sun and Xiao Tan. 2008—present. GLOBONANO contains a complete set of metadata records for all known peer-reviewed journal articles and conference proceeding articles on nanotechnology, nanotechnology patents and patent families, profiles of nanotechnology-relevant corporations including SEC records and product offerings, and nanomaterials. Includes social network analytics tools written in Java, Python, SQL, and d3.js, and intelligent data collection tools in Racket.
2. *Fantasy Collecting.* Art market simulation for the classroom. Co-inventor. With Katherine Jentleson and Will Shaw. 2012-2014.
3. "Fantasy Collecting: A Game for Art Education and Market Simulation" In Art History 2.0: New Technologies and Changes in Pedagogical Practice. Guest blog entry, 12 Oct 2012. http://techandarthistory.wordpress.com/2012/10/12/fantasy-collecting-a-game-for-art-education-and-market-simulation/
4. *Twitter Music.* Music compositions generated from twitter data streams containing "Obama" and "Osama" in the aftermath of the killing of Osama Bin Laden on 10 May 2011. With Scott Lindroth. Fall 2011-Spring 2012. A technical description is available at http://people.duke.edu/~scott1/twitter.html. A version of the piece can be heard at http://people.duke.edu/~scott1/soundfiles/TwitterMusicWithMrbs/Resources/TwitterMusicWithMrbs.mov.
5. *Twitter Music.* Exhibit, Chat Festival 2012, Duke University. With Scott Lindroth and Raquel Salvatella de Prada. 06-09 Feb 2012.
6. *Twitter Music.* Sonification project composed by Scott Lindroth performed live by Doug Perkins and Todd Meehan, Nelson Music Room, Duke University. 21 Jan 2012. An excerpt of the performance can be found at http://www.youtube.com/watch?v=i0khWLhV5_c
7. *Online Duke Discourse.* Developed a document archive with experimental search and analytics interface. Built from Apache SOLR; allows for separating and mixing of different corpora for search; provides on-the-fly topic identification. With D.J. Sharkey and Lisa Klarr, May 2010.

8. *Virtual Peace*. Project Collaborator and operations manager. Development of a 3D immersive educational humanitarian relief simulation for peace and conflict resolution, funded by a Macarthur grant. Principal creator of a dynamic website designed for simulation role learning and the management of roles, role descriptions and role assignments by instructors. With Tim Lenoir, Natalia Mirovitskaya, Jerry Heneghan, Kacie Wallace, Richard Lucic, and Robert Duvall. Released 08 Oct 2008. http://www.virtualpeace.org.
9. Historiographic patent network search visualization tool. With Vincent Dorie, May 2008.
10. *Excavating Occaneechi Town*. Re-development of existing Java-based instructional tool for teaching archaeological excavation originally created by Stephen Davis, Patrick Livingood, Trawick Ward and Vincas Steponatis. 2004. http://www.ibiblio.org/dig/

Poetry & New Media Publications
1. *Backlash*. Four poems. In press, 2015.
2. *RASPUTIN.* "The Gaping Mouths of the Godless Pilgrims." Poem. 01 Nov 2014. *http://rasputinpoetry.blogspot.com/2014_11_01_archive.html*
3. *Oyster Boy*, two poems. Vol. 20, Summer 2012. http://www.oysterboyreview.org/issue/20/poetry/index-poetry.html
4. *Talisman.* "Embedded V." Numbers 38/39/40, Fall 2010.
5. *Scythe*. Three poems. Volume I, 2009. http://scytheliteraryjournal.yolasite.com/patrick-herron.php
6. *Fanzine*. Three poems. 12 Sep 2008. http://www.thefanzine.com/articles/poetry/295/lucifer_poetics_the_state_of_nc_part_2/8
7. *The News & Observer*. Untitled (one poem). 17 Jan 2007. http://www.newsobserver.com/news/story/532973.html.
8. *Talisman*. Three poems. (As Lester; heteronymous work.) Numbers 30-31, Fall 2005-Winter 2006.
9. North Carolina Arts Council site (ncarts.org). "Latent Prescience." From "A Poem a Day" feature by Kay Stripling Byer. 29 Apr 2005. http://ncarts.org/freeform_scrn_template.cfm?ffscrn_id=206.
10. *Poeziepamflet.nl*. Two poems (in translation, Dutch). Issue 5, Sep 2004. http://is.gd/1Q7o, redirected from the Internet Archive.
11. *Durham Herald-Sun*. "Familiar nest in coddle moss…" Poem. 20 Aug 2004.
12. *Somewhat.org*. "The Oprah Book Club: Purple Elephants, or, a Journey into the Unconscious of Oprah Winfrey and the Show-Biz Cowboys, by Oprah Winfrey." Short story. The Politics Edition, Jan 28 - Feb 11, 2004. http://is.gd/1Q6p, redirected from the Internet Archive.
13. "Read a poem and allow yourself to wonder." My View column. In *Chapel Hill News*. 16 Jan 2004.
14. *A Chide's Alphabet*, Four poems. Issue Three, Dec 2003.

http://homepage.ntlworld.com/david.bircumshaw/ChideThree/PHerron.htm.
15. *Exquisite Corpse.* Three poems. Issue 13, Fall 2003.
http://www.corpse.org/issue_12/allpoetry/herron.html.
16. *Fulcrum.* Two poems. Issue 2. 2003.
17. *The Canary River Review.* Six poems. Issue 2, May 2003.
18. *VeRT.* "The Blood Spatter'd Banner." Issue #8. Mar/Apr 2003.
http://www.litvert.com/pherron.html.
19. *The Canary River Review.* Two poems. Issue 1, Nov 2002.
20. *The Muse Apprentice Guild.* Seven poems. Volume 01, Issue 002. Spring 2003.
http://www.muse-apprentice-guild.com/spring_2003/patrickherron-poetry-fiction/home.html.
21. *The Muse Apprentice Guild.* Poetic situation, "Goodbye Patty, Farewell." Volume 01, Issue 001.Nov 2002.
22. *VeRT.* Three poems. Issue #7. Sep 2002. http://www.litvert.com/issueseven.html.
23. *Bivouac.* Three poems. Summer 2002.
24. *A Chide's Alphabet,* Seven poems. Issue Two, October 2001.
http://homepage.ntlworld.com/david.bircumshaw/ChideTwo/ChidesAlphabet.htm.
25. *Can We Have Our Ball Back?* Eight poems. Issue 8.0. Sep 2001.
http://canwehaveourballback.com/8contributors.htm.
26. VeRT. Two poems. Issue #4. Summer 2001.http://www.litvert.com/issuefour.htm.
27. Rhizomes, Website. Issue 1. September 2000. http://www.rhizomes.net/Issue1/toc.html

Poetry & New Media Exhibits and Public Works
1. *Proximate.org.* Website. Oct 2001. http://proximate.org/. Included in the permanent electronic collection (rhizome.org) of New Museum, New York City, New York. http://rhizome.org/object.rhiz?2219.
2. *Project Hope.* Two poems in exhibition. AJAC Exhibition of New Art, Tokyo Metropolitan Art Museum, Tokyo, Japan. Fall 2002.
3. "Zombie." Multimedia Flash animation. Jun 2004. http://proximate.org/zombie.htm.
4. "Adaptation." Electronic music CD (as Blindfolder). Apr 2003. http://proximate.org/blindfolder.htm.
5. "I am not a Wall." Poem for public mural. 103 E. Main St., Carrboro, North Carolina. Mural completed May 2004; destroyed by act of vandalism 2007. Poem restored to new mural at same location, Jun 2009.

GRANT PARTICIPATION AND FELLOWSHIPS

1. Center for Environmental Impacts of NanoTechnology (CEINT)
NSF-EF-08-30093 (PI: Mark Wiesner) 01 Oct 2008-30 Sep 2013; Renewed 2014-2015; renewed 2015-16
Role: Research Scientist
$210K
2. Center for Nanotechnology and Society (CNS-UCSB)

NSF-0531184 (PI: Barbara Harthorn), 1 Sep 2005-31 Jul 2010; Renewed 2011-2013
Total Center Award: $5 million
Role: Extramural Collaborator
$15K

3. Center for Nanotechnology and Society
   Supplement to NSF-0531184, Project #: 3530204, 06 Apr 2010-05 Apr 2011
   Role: Extramural Collaborator
   $10K supplement
4. GreaterThanGames Humanities Lab
   Duke Franklin Humanities Institute/Mellon Foundation (PIs: Katherine Hayles, Tim Lenoir, Victoria Szabo), 01 Sep 2011-31 Jul 2013
   Total Award: $50K
   Role: Project Collaborator
5. Virtual Conflict Resolution: Turning Swords to Ploughshares
   MacArthur Foundation Innovation Award (PI: Tim Lenoir), 21 Feb 2008-01 May 2009
   Total Award: $238K
   Role: Project Collaborator
6. Civil Discourse in the Age of the Internet (PIs: Tim Lenoir, Richard Lucic, Kenneth Rogerson)
   Duke SIP Startup Funding 2009-2011
   Total Award: $300K
   Role: Project Collaborator
7. Ellen Kalp Fellowship, School of Information and Library Science, UNC-Chapel Hill, 2003-05 (declined).

INVITED TALKS

1. "The Impact of The NCI Alliance for Nanotechnology in Cancer," 23 Jan 2014. Presentation to the National Cancer Institute Nanotechnology Working Group on Nanoinformatics, Washington, DC.
2. "GLOBONANO: Analyzing the Impact of Global Nanotechnology and The NCI Alliance for Nanotechnology in Cancer," 15 Oct 2013. Nanoinformatics 2013: Informatics for Nanomanufacturing Conference, Philadelphia, PA.
3. "Signaling and shaping preferences," panelist, 31 Oct 2012. Art Expertise in a Digital World. DALMI Annual Meeting, Duke University, Durham, NC.
4. "Fantasy Collecting: A New Pedagogical Game at Duke University," 19 Oct 2012. SECAC Annual Conference, Durham, NC.
5. "Learning via Simulation and Games," Invited workshop presentation, 25 May 2012. Extending Classroom Reach & Enhancing The Learning Experience, Duke Corporate Education with SPRING Singapore.
6. "The Digital Muse: The Internet, Social Media, and Contemporary Poetics," 11 Nov 2011. Introduction and moderator for the "Digital Muse" panel at the One Makes Many: Conference of Poetic Interactions, Duke University, Durham, NC.

7. "Culture mining and art markets," 02 Nov 2011. DALMI Annual Meeting, Duke University, Durham, NC.
8. "Master Collector: an Art Market Simulation Game," 02 Nov 2011. With Katherine de Vos and Katie Jentleson. DALMI Annual Meeting, Duke University, Durham, NC.
9. "Visualizing the Cultural Imaginary." Presentation for the Visualizing Comparisons Panel. 01 Oct 2011. ACL[X], a conference of the American Comparative Literature Association, Penn State University, State College, PA.
10. "Meme-ing, Mining, Mapping the Cultural Imaginary." Presentation for the Data and Cognition Panel. With Tim Lenoir. 29 Oct 2010. 24th Annual Conference of the Society for Literature, Science, and the Arts (SLSA), Indianapolis, IN.
11. "Tracking the Current Rise of Chinese Pharmaceutical Bionanotechnology." Invited conference presentation. 4th Medical Biotechnology Forum, Dalian, China. 10 Aug 2009.
12. "Mapping Chinese Nanotechnology and Pharmacogenomics: Sticky Ontologies and Social Networks." With Timothy Lenoir. Conference presentation. Writing Genomics Workshop, Max Planck Institute for the History of Science, Berlin, Germany. 30 Oct 2008.
13. "Digital Media Writing as Academic Authorship." Conference presentation. New Media Consortium 2008 Summer conference. Princeton University, 13 Jun 2008.
14. "We Generate Our Self." Presentation for ISIS Tech and New Media Tuesdays, 22 Apr 2008. Duke University, Durham, NC.

INVITED READINGS AND PERFORMANCES

1. Live radio interview. The Joe Milford Show. 17 Oct 2009. Archived at http://www.blogtalkradio.com/joe-milford-show/2009/10/17/joe-milford-hosts-patrick-herron
2. Poetry reading. Incidental Literary Series. West Asheville, NC. 03 Oct 2009.
3. Poetry reading. Lame Duck Books/Pierre Menard Gallery, Cambridge, MA. 23 Apr 2009.
4. Poetry reading. Minor Americans Poetry Series. Durham, NC. 15 Nov 2008.
5. Poetry reading. Stain of Poetry Reading Series. Brooklyn, NY. 24 Oct 2008.
6. Poetry reading. Incidental Literary Series. West Asheville, NC. 27 May 2008.
7. Poetry reading. Blue Door, Carrboro, NC. 25 Mar 2006.
8. Poetry reading, with Kent Johnson. Desert City Poetry Series, Chapel Hill, NC. 26 Mar 2006.
9. Poetry reading. Carrboro Poetry Festival. Carrboro Century Center, Carrboro, NC. 21 May 2005.
10. Poetry reading. hassen presents Patrick Herron & Elizabeth Reddin at La Tazza, Philadelphia, PA. 25 Sep 2004.
11. Poetry reading. Carrboro Poetry Festival. Carrboro Century Center, Carrboro, NC. 06 Jun 2004. (Organizer)
12. Poetry reading, with Joe Donohue. Desert City Poetry Series. Sizl Gallery, Carrboro, NC. 22 Jan 2004.

13. Poetry reading. Temple Ball. Carrboro, North Carolina. "Poets Against the Shrub." 16 Oct 2003. (Organizer)
14. Poetry reading. Segue Reading Series, Mini-Festival of Digital Poetry, Bowery Poetry Club. New York, NY. 23 Nov 2002.
15. Black Mountain College, Under the Influence Festival. "Not Your Average Poetry Reading." With Lee Ann Brown. 21 Sep 2002.
16. Multi-literary Reading, The Flying Saucer, Brooklyn, NY. 10 Jul 2001.
17. Duke University, Blackburn Literary Festival, Performance, 10 Apr 2000.

TEACHING EXPERIENCE

1. Special Topics: Humanities Data Mining + Meaning (Spring 2016). Undergraduate course cross-listed in Information Science + Studies (ISS) and Visual and Media Studies (VMS), Duke University.
2. Independent study/capstone (Spring 2016). Undergraduate independent study providing capstone education to undergraduate senior certificate candidate in Information Science + Studies (ISS), Duke University.
3. Information, Society & Culture (Fall 2015). Bass connections research gateway course. Cross-listed with Computer Science, Philosophy and Computer Science. Instructor, Duke University.
4. Independent Study (Spring 2015). Semester on theoretical foundations of text mining in the humanities for Art, Art History & Visual Studies doctoral student at Duke University.
5. Telling Realism (Spring 2014). Graduate seminar at Duke University for the MFA in Experimental and Documentary Arts. Instructor, with Tom Rankin and Tim Lenoir.
6. Genealogies of the Experimental (Fall 2011, Fall 2012). Graduate seminar at Duke University for the MFA in Experimental and Documentary Arts. Instructor, with Tim Lenoir.
7. Critical Studies in New Media (Fall 2007, Fall 2009, Spring 2011, Spring 2013, Spring 2015). Graduate seminar at Duke University. Cross-listed in Visual + Media Studies (VMS), Information Science + Studies (ISS), Literature, and Philosophy. Instructor, with Tim Lenoir.
8. How They Got Game (Fall 2007, Fall 2011, Fall 2012). Undergraduate course at Duke University. Cross-listed in Visual + Media Studies (VMS), Information Science + Studies (ISS), Literature, and Philosophy. Instructor, with Tim Lenoir.
9. Post-Digital Architectures—Living Machines (Fall 2010). Graduate seminar at Duke University. Cross-listed in Information Science + Studies (ISS), Literature, and Philosophy. Instructor, with Tim Lenoir.
10. BodyWorks: Medicine, Technology, and the Body in Early 21st Century America. (Spring 2008, Spring 2015). Seminar at Duke University. Cross-listed in Information Science + Studies (ISS), Literature, and Philosophy. Instructor, with Tim Lenoir.

CURRICULUM DEVELOPMENT

1. Special Topics: Humanities Data Mining + Meaning (Spring 2016). Undergraduate course cross-listed in Information Science + Studies (ISS) and Visual and Media Studies (VMS), Duke University.
2. Independent study/capstone (Spring 2016). Undergraduate independent study focused on User Experience design, Duke University.
3. Information, Society & Culture (Fall 2015). Bass connections research gateway course. Cross-listed with Computer Science, Philosophy and Computer Science.
4. Independent Study (Spring 2015). Semester on theoretical foundations of text mining in the humanities for Art, Art History & Visual Studies doctoral student at Duke University.
5. BodyWorks: Medicine, Technology, and the Body in Early 21st Century America. (Spring 2015). Seminar at Duke University. Cross-listed in Information Science + Studies (ISS), Literature, and Philosophy. With Tim Lenoir.
6. Telling Realism (Spring 2014). Graduate seminar at Duke University for the MFA in Experimental and Documentary Arts. With Tom Rankin and Tim Lenoir.
7. Genealogies of the Experimental (Fall 2011, Fall 2012). Graduate seminar at Duke University for the MFA in Experimental and Documentary Arts. With Tim Lenoir.
8. How They Got Game (Fall 2011, Fall 2012). Undergraduate course at Duke University. Cross-listed in Visual + Media Studies (VMS), Information Science + Studies (ISS), Literature, and Philosophy. With Tim Lenoir.
9. Critical Studies in New Media (Fall 2009, Spring 2011, Spring 2013, Spring 2015). Graduate seminar at Duke University. Cross-listed in Visual + Media Studies (VMS), Information Science + Studies (ISS), Literature, and Philosophy. With Tim Lenoir.

PROFESSIONAL SUPPORT AND CONSULTING

1. Consulting with George Hinkal, Program Manager, Office of Cancer Nanotechnology Research, National Cancer Institute, US National Institutes of Health, Sep 2013-Jan 2014.
2. Consulting with Dr. R. Kalpana Sastry, Head of the Research Systems Management Division, National Academy of Agricultural Research Management, India, on methods for automated storage and analysis of nanotechnology knowledge, Jun 2010.
3. Provided expert content for Richard Appelbaum's testimony, "China's Investment in Nanotechnology and Its Likely Impact on the U.S.," US-China Economic Security Commission hearings on China's Industrial Policy, Russell Senate Office Bldg., Washington, D.C., 24 Mar 2009.
4. Consulting with SparkIP. Provided algorithm for on-the-fly cluster labeling of patent analysis engine and implementation of retrieval performance metrics. SparkIP employs novel techniques for data mining and visualization of patents and scientific/engineering literature, grants, and companies to map the technological developments worldwide. Sep 2008-May 2010.
5. Consulting with TRIP (formerly Turning Research Into Practice;

https://www.tripdatabase.com). 2005-2006.

MEDIA COVERAGE

1. Featured expert, promotional infographic for The Hague Declaration on Knowledge Discovery in the Digital Age, published 2015 at http://thehaguedeclaration.com/big-data-can-reshape-the-world-and-save-lives-infographic/

2. Featured North Carolina poet. *Poets.org* website, from the Academy of American Poets, http://www.poets.org/state.php/varState/NC. 2007-2015.

3. 'Durham Company Putting Gamers Into "Alternate Reality" Worldwide.' *WNCN-Raleigh Evening News*, 04 Jun 2009. Related article at http://www.wncn.com/story/20891775/durham-company-putting-gamers-into-alternate-reality-worldwide

4. "The voices of Chapel Hill poet Patrick Herron's alter ego." Book review of *Be Somebody*. In *The Independent Weekly*, Durham, NC. Downloaded 05 Nov 2008 from http://www.indyweek.com/gyrobase/Content?oid=oid%3A268500.

5. "Lucifer Poetics: The State of NC part 2." Article by Brian Howe. In *Fanzine*, 12 Sep 2008. http://www.thefanzine.com/articles/poetry/295/lucifer_poetics-_the_state_of_nc_part_2/1

6. "Found Sound 2007." Blindfolder reviewed in article by staff. In *Pitchfork*. Downloaded 21 Jan 2008 from http://pitchfork.com/features/staff-lists/6768-found-sound-2007/.

7. *The American Godwar Complex* reviewed by Standard Schaefer, in *Talisman*, nos. 30-31, Fall 2005-Winter 2006, pp.204-206.

8. "Patrick Herron and Ken Rumble." Article by Tony Tost. In *The Independent Weekly*, Durham, NC. 13 Jul 2005.

9. "Carrboro's well-versed poet sticks to his rhythm." Article by Susan Broili. In *The Durham Herald-Sun*. 20 Aug 2004.

10. Rants, as well as art, take time, poet laureate finds." Article by Dave Hart. In *The Chapel Hill News*. 20 Aug 2004.

11. Summer book reviews. "The State of Things." *WUNC Radio 91.5 FM.* Original airdate 03 Aug 2004.

12. "Free Verse: Carrboro's first poetry festival rests on its own laureate." Article by Madelyn Rosenberg. In *The Independent Weekly*. 02 Jun 2004.

13. "Festival draws masters of rhyme and meter." Article by Dave Hart. In *The Chapel Hill News*. 01 Jun 2004.

14. "Writing Down the Bones." Article by Renee Jacqueline Alexander. In *The Independent Weekly*. 14 Apr 2004.

15. "Poetry fest highlights N.C., other writers." Article by Susan Broili. In *The Durham Herald-Sun*. 31 May 2004.

16. "Words will sizzle as poets read at Sizl." Article by Susan Broili. In *The Durham Herald-Sun*. 13 Jan 2004.

17. Texfiles Poet of the Week, 19-25 Dec 2003. *chris murray's tex files.* http://texfiles.blogspot.com/2003_12_14_texfiles_archive.html#107181967738486098.

18. "My sock puppet, my self." Review of *Be Somebody*. Ron Silliman. In *Silliman's Blog*. 24 Nov 2003. http://ronsilliman.blogspot.com/2003/11/my-sock-puppet-my-self.html.
19. "Where Sharing Isn't a Dirty Word." Article by Michelle Delio. In *Wired News*. 15 Nov 2003.
20. "Poetry to replace ads in mural." Article by Jenny Huang. In *The Daily Tar Heel*. 02 Sep 2003.
21. "Poetry to replace signs on town mural." Article by Dave Hart. In *Chapel Hill News*. 27 Aug 2003.
22. "Poet laureate wants to connect with community." Article by Dave Hart. In *Chapel Hill News*. 06 Jul 2003.
23. "Bard is well-versed in Carrboro's Character." Article by Susan Broili. In *The Durham Herald-Sun*. 03 Jul 2003.
24. "In Black Mountain College tradition, museum sponsors poetry happenings." Article by Rob Neufeld, *Asheville Citizen-Times*, 06 Sep 2002. http://cgi.citizen-times.com/cgi-bin/story/19590/.

ARTS AWARDS AND RECOGNITION

1. 2008 winner of Indies Arts Award, from *The Independent Weekly*, Durham, NC, as board member of Carolina Wren Press.
2. 2005 winner of Indies Arts Award, from *The Independent Weekly*, Durham, NC. http://indyweek.com/gyrobase/Content?oid=oid%3A24716.
3. Semifinalist, 2002 Verse Prize. (Twice, for two manuscripts.)
4. Pushcart Prize nominee, 2002.

PROFESSIONAL ACTIVITIES, ASSOCIATIONS AND ARTISTIC LEADERSHIP

1. Delegate, Open Science Initiative (http://osinitiative.org/), 2016-2025.
2. Editor-at-large, *Rhizomes*.
3. Member, Association for Computing Machinery
4. Member, American Society for Information Science & Technology
5. Member, Society for Literature, Science, and the Arts
6. Board of Directors, Carolina Wren Press. 2003-present.
7. Editor, *And Aeneas Stares Into Her Helmet*. Carolina Wren Press, 2009.
8. Host & Organizer, 4 Contemporary US Poets reading. Chapel Hill, NC. 17 Nov 2007.
9. Judge, 2004 Poetry Contest for *The Independent Weekly*, Durham, NC.
10. Co-founder, Lucifer Poets Group. Founded Mar 2004.
11. Poet Laureate, Township of Carrboro, North Carolina, 2003-2005.
12. Founder, organizer, and director, Carrboro Poetry Festival. 2003-2005.

TECHNICAL SKILLS

Computer Languages

Java, SQL, sed, awk, Python, C, C++, Perl, XML, XSL / XSLT, DTD, PHP, HTML, XHTML, JavaScript, CSS, bash.

Tools

Oracle RDBMS, MySQL RDBMS, SAS, R, Weka, WordNet, Natural Language Toolkit (NLTK), Excel, d3.js, RapidMiner, Gensim topic modeling, Git.

General Technical Skills

Systems analysis, iterative software development management, and information architecture design. Text mining, data mining, web mining, natural language processing (NLP), text parsing, information retrieval, machine learning, text classification, text clustering, topic identification, support vector machines (SVM), entity relationship (ER) modeling, database schema design, shell scripting, data visualization, data integration, information architecture, interface design, and website management and implementation. UNIX, LINUX and OSX systems administration.