

April Edwards

Professor of Cyber Science
United States Naval Academy
Annapolis, MD

Professional Summary

- Fifteen years of full-time teaching experience in a variety of disciplines and formats
- Internationally recognized researcher in data science
- Thirteen years of industrial experience
- PhD in Computer Science and Engineering from Lehigh University
- Over \$1.1MM in extramural funding to support research
- Over 40 publications in peer-reviewed venues
- Founding co-director of the U-Imagine Center for Integrative and Entrepreneurial Studies
- Collaborative and creative problem solver with excellent oral and written communication skills
- Seven years of academic administrative experience
- Experienced and effective fundraiser (corporate, foundation, government and private donors)
- Experienced negotiator, in both formal and informal settings, with the ability to listen to all parties and lead the development of a solution that is embraced by all
- Graduate of the Management Development Program from the Harvard Graduate School of Education

Education

Ph.D. in Computer Science, Lehigh University	<i>January 2004</i>
M.A. in Mathematics, Duke University	<i>May 1986</i>
B.A. in Mathematics, Bloomsburg University	<i>May 1984</i>
Certificate of Completion, Management Development Program, Harvard Graduate School of Education	<i>June 2015</i>

Appointments

Department of Cyber Science, United States Naval Academy	
<i>Professor</i>	<i>July 2019 – Present</i>
<i>Courses taught:</i> Data structures for Cyber Operations (SY301)	

Department of Computer Science and Information Systems, Elmhurst College	
<i>Professor</i>	<i>June 2017 – July 2019</i>
<i>Courses taught:</i> Preparatory course for students on academic probation, Academic leadership seminar	

Department of Mathematics and Computer Science, Ursinus College	
<i>Professor</i>	<i>June 2015 – May 2017</i>
<i>Associate Professor</i>	<i>September 2009 – May 2015</i>
<i>Assistant Professor</i>	<i>September 2003 – August 2009</i>

Courses taught: Introduction to Computer Science, Data Structures, Object-oriented Design and Software Engineering, Database Design, Principles of Programming Languages, Parallel Algorithms and Computing, Information Retrieval, Data Mining, Artificial Intelligence, Computer Science for the Liberal Arts, Computer Architecture and Organization, and Operating Systems, Computer Graphic, Calculus for Business and Economics, Statistics 1, Statistical Reasoning, Mobile Applications Development

Department-level service activities: Chairing and participating in search committees; Chairing and participating in curriculum review committees; participation on faculty review committees; mentoring student research and independent studies; overseeing student internships; advising student groups; major advising

Department of Business and Computer Science, Montgomery County Community College
Instructor *August 1999 – August 2003*

Courses taught: Computer Information Systems for Management, Computer Science I (Programming Concepts), Computer Science II (Data Structures and Algorithms), Design Making using Spreadsheets, Database Management Systems with SQL (online and onground).

Department-level service activities: Search committees, curriculum review committees

Academic Administrative Appointments

Elmhurst College

Vice President for Academic Affairs and Dean of the Faculty *June 2017 – July 2019*

- Oversee all academic components of the institution, including over 63 majors and 15 graduate and certificate programs
- Oversee Center for Professional Excellence, Learning Center, School for Professional Studies, Niebuhr Center, Center for Scholarship and Teaching, Center for Health Professions Advising, Honors Program, Service Learning, Academic Advising, Retention Task Force, A.C. Buehler Library, Access and Disability Services, Instructional Technology, Registration and Records, and International Programs.
- Participate in faculty governance as a member of the Faculty Council, Academic Council, Advisory Group for Strategic Planning, and Faculty Personnel Board.
- Approximately 160 full-time faculty, over 200 part-time faculty, and 75 staff
- Oversee activities of the full-time Associate Dean of the Faculty, as well as the Assistant Deans for Programs and Curriculum, Graduate and Special Programs, Faculty Development and Assessment and Accreditation (half-time positions)
- Liaison for the Academic Affairs Committee for the Board of Trustees
- Cultivation and stewardship of major gifts
- Develop strategic partnerships with other institutions
- Ongoing communication with internal and external stakeholders at multiple levels
- Manage salary and operational budget of approximately \$23.5 million

Ursinus College

Interim Vice President for Academic Affairs and Dean of the College *April 2016 – May 2017*

- Strategic plan development, implementation, and assessment
- Liaison for the Academic Affairs Committee for the Board of Trustees
- Oversee all academic components of the institution, including over 60 programs of study
- Management of faculty hiring, professional development, and promotion and tenure processes
- Management of strategic initiatives, including development of a new \$29.2 million interdisciplinary science building, a new curricular program in Philadelphia, and a new general education curriculum
- Oversee library and information technology, registrar, international programs, career and professional development, civic engagement, teaching and learning institute, center for writing and speaking, office of sustainability, and three interdisciplinary centers.

- Dotted line reporting oversight of the Executive Director of External Relations, responsible for Corporate, Foundation, and Government funding. Significantly increased faculty submissions for extramural funding across all disciplines, as well as awards received.
- Total organization size: approximately 130 full-time faculty, 50 part-time faculty, 45 staff
- Maintain faculty to student ratio of 12:1
- Cultivation and stewardship of major gifts
- Develop strategic partnerships with other institutions
- Ongoing communication with internal and external stakeholders at multiple levels
- Manage salary and operational budget totaling \$20 million

Associate Dean

January 2016 – March 2016

- Oversee faculty development, arts and lectures, and curriculum committees
- Work with department chairs to coordinate course scheduling and staffing
- Develop more efficient office policies and practices
- Coordinate department and program reviews
- Dean's office liaison with advancement for grant funding and other initiatives
- Coordinate Pennsylvania Consortium for the Liberal Arts activities

Founding Co-Director U-Imagine Center for Integrative and Entrepreneurial Studies

September 2012 – December 2016

- Developed center concept, recruited co-directors from disparate fields, and guided the center through the college's approval process
- Cultivation and stewardship of major gifts
- Development and management of Center programs, which are focused on the development of an entrepreneurial mindset in students from all majors and at all levels
- Strategic planning for Center growth, including educating faculty on the value of the entrepreneurial mindset and its close alignment with liberal arts principles

Chair, Department of Mathematics and Computer Science

July 2014 – March 2016

- Hiring for tenure-track, continuing, visiting, and adjunct positions
- Led the revision of departmental learning goals and curricular development initiatives
- Manage direct and indirect assessment activities
- Annual evaluation of all department faculty (9 full time and up to 6 adjunct faculty)
- Chair review committees for pre-tenure faculty
- Course scheduling and staffing
- Mentoring and supervision of faculty, staff and students
- Manage departmental budget

Other Administrative and Professional Experience

Electronic Data Systems

July 1986 – August 1999

Software Development Center Manager

- Direct management and supervision for 35 direct reports at multiple levels
- Performance review, salary management, training, promotion review
- New business development and sales support
- Mentoring and support of employees
- Manage annual salary budget of \$2.6 million

Project Lead

- Multiple projects with timespans from 3 – 15 months
- Team sizes ranging from 3 – 12 software engineers at multiple levels
- Planning and assigning work
- Direct customer communication
- Mentoring and support of project team members

Software Engineer

- Software design, development, testing, implementation and maintenance
- Database administration

Significant Community Leadership Experience

School Director, Pottsgrove School District, Pottstown PA *December 2003 – November 2011*

- Twice elected by community as one of nine school directors (did not run for a third term)
- Management and oversight of all school activities, including program and facility improvements
- Management and oversight of \$50 million budget
- Budget allocation, review and approval, including tax rate assessment

Partial List of College-Wide Service Activities

Departmental Research Committee, United States Naval Academy

Chair

August 2019 - Present

- Coordination policies and procedures around midshipment research activities
- Facilitate, support and encourage faculty research activity within the department
- Coordinate with academy-wide research initiatives, as appropriate

Faculty Governance Committee, Ursinus College

Chair

2006 – 2011; Fall 2012 – December 2015

- Coordination with administration on all faculty governance issues
- Faculty liaison to the Board of Trustees
- Oversight of a major revision to the Faculty Handbook
- Management and oversight of the faculty election process

Promotion and Tenure Committee, Ursinus College

Science Representative

Fall 2014 – December 2015

- Review of evaluation packets from all departments, including initial review (2nd year), pre-tenure review (4th year), tenure review, and promotion review
- Make recommendations to the Dean and President regarding tenure and promotion decisions

Presidential Search Committee, Ursinus College

Faculty Representative

2010 – 2011; 2014 – 2015

- Twice elected by colleagues to represent the faculty
- Work with full committee consisting of trustees, faculty members, staff and students, to review and interview candidates
- Make recommendation for appointment to the Board of Trustees

Foundation and Government Funding

Principal Investigator, NSF award (\$349,160), An Analysis of the Relationship Between Cyberaggression and Self-Disclosure among Diverse Youths, with Co-PI, Dr. Lynne Edwards, 09/01/2014 – 08/31/2019.

Principal Investigator, NSF award (\$50,000), I-Corps: Exploring the Commercialization Potential of ChatCoder, 09/01/2014 – 03/31/2017.

Principal Investigator, NSF award (\$498,428), Research at Undergraduate Institutions: Tracking Predators and Bullies Via Chat Log Transcripts, with Co-PI, Dr. Lynne Edwards and Senior Investigator, Dr. Brian Davison (Lehigh University), 09/01/2009 – 09/01/2013.

Co-Principal Investigator, NSF award (\$218,256), Research Experiences for Undergraduates Site: Mathematical Sciences at Ursinus College - A Broad Spectrum of Opportunities, with PI, Dr. Mohammed Yahdi, 04/15/2010 – 4/15/2015.

Principal Investigator, VentureWell (\$7845), U-Imagine Center: Planning for IMPACT. 08/01/2015-07/31/2016.

Publications (* indicates undergraduate co-author; Kontostathis was my previous surname)

- Edwards, April, Lynne Edwards, Alec Martin*, David Demoll* and Julissa Bonilla*. 2019. Cyberbullying Perceptions and Experiences in Diverse Youth. *In preparation*.
- Edwards, April, David Demoll* and Lynne Edwards. 2019. Machine Learning Approaches for Cyberbully Detection Across Platforms. *In preparation*.
- Sun, Bo, Richard Igbiriki, Perewari Pere, and April Edwards. (2016). Kizzle- An App For Learning. *Proceedings of 2016 International Conference on Interactive Mobile Communication, Technologies and Learning (IMCL)*. October 2016. San Diego, CA.
- Bigelow, Jacob*, April Edwards (Kontostathis), and Lynne Edwards. (2016). Detecting Cyberbullying using Latent Semantic Indexing. In *Proceedings of Cybersafety 2016*. October 2016. Indianapolis, IN.
- Edwards, Lynne, Kontostathis, April, & Fisher, Christina*. (2016). Race, cyberbullying and mental health: A review of the literature. *Media and Communication*, 4(3), 71-78.
- Rink, Matthew*, Nathan Labourdette*, Andy Santiago*, April Kontostathis, and Cathy Chambliss. (2014). TherAPPist: Using Mobile Technology to Aid Therapy. In *Proceedings of the 2014 ACM Richard Tapia Celebration of Diversity in Computing*. February, 2014. Seattle, WA.
- Chambliss, Cathy and April Kontostathis. (2014). Using Mobile Technology to Enhance Psychotherapy for Treatment of Schizophrenia: A Feasibility Study. *International Journal of Virtual Worlds and Human Computer Interaction*. 2(1), 8-17.
- Snodgrass, Sam Philip* and April Kontostathis. (2013). Building a 3D Game in Multiple Environments. *The International Journal of Visual Design*, Volume 6, Issue 4, pp.45-54.
- Kontostathis, April, Kelly Reynolds*, Andy Garron*, and Lynne Edwards. (2013). Detecting Cyberbullying: Query Terms and Techniques. In *Proceedings of the 5th ACM Web Science Conference (WEBSCI2013)*. Paris, France. May 2013.
- Kontostathis, April, William West, Andy Garron*, Kelly Reynolds*, and Lynne Edwards. (2012). Identifying Predators Using ChatCoder 2.0 - Notebook for PAN at CLEF 2012. In *Proceedings of CLEF 2012*. Rome Italy. September 2012.
- Edwards, Lynne and April Kontostathis. (2012). Digital Detecting: New Resources for Determining Internet Authorship. In *Proceeding of the 4th ACM Web Science Conference (WEBSCI2012)*. Evanston, IL. June 2012.
- Garron, Andy* and April Kontostathis. (2012). Latent Semantic Indexing with Selective Query Expansion. In *Proceedings of the Text Mining Workshop 2012*. Anaheim, CA. April 2012.
- Edwards, Lynne and April Kontostathis. (2012). Reclaiming Privacy: Reconnecting Victims of Cyberbullying and Cyberpredation. In *Proceedings of the Reconciling Privacy with Social Media Workshop, held in conjunction with the 2012 ACM Conference on Computer Supported Cooperative Work*. Seattle, WA. Feb 2012.

- Garron, Andy* and April Kontostathis. (2012). Applying Latent Semantic Indexing on the TREC 2011 Legal Dataset. In *The Nineteenth Text REtrieval Conference Proceedings*. November 2011. Bethesda, MD. <http://trec.nist.gov/pubs/trec19/t19.proceedings.html>
- Reynolds, K*, A. Kontostathis and L. Edwards. 2011. Using Machine Learning to Detect Cyberbullying. In *Proceedings of the 2011 10th International Conference on Machine Learning and Applications Workshops (ICMLA 2011)*. December 2011. Honolulu, HI.
- Thom, Brett*, April Kontostathis and Lynne Edwards. (2011). SafeChat: Using Open Source Software to Protect Minors from Internet Predation. *Poster presentation at WebSci11*, June 14-17, 2011, Koblenz Germany.
- Bayzick, Jennifer*, April Kontostathis and Lynne Edwards: Detecting the Presence of Cyberbullying Using Computer Software. (2011). *Poster presentation at WebSci11*, June 14-17, 2011, Koblenz Germany.
- McGhee, India*, Jennifer Bayzick*, April Kontostathis, Lynne Edwards, Alexandra McBride*, and Emma Jakubowski*. (2011). Learning to Identify Internet Sexual Predation. *International Journal on Electronic Commerce*. Volume 15, Number 3. Spring 2011
- Garron, Andy* and April Kontostathis. (2011). Applying Latent Semantic Indexing on the TREC 2010 Legal Dataset. In *The Nineteenth Text REtrieval Conference Proceedings*. November 2010. Bethesda, MD. <http://trec.nist.gov/pubs/trec19/t19.proceedings.html>
- Kontostathis, April, Erin Moulding and Raymond J. Spiteri. (2010). EDLSI with PSVD Updating. In *Proc. Text Mining Workshop 2010 held in conjunction with the Tenth SIAM International Conference on Data Mining (SDM 2010)*. Columbus, OH. May 2010.
- Moulding, Erin, April Kontostathis and Raymond J. Spiteri. (2010). Sparse Matrix Factorization: Applications to Latent Semantic Indexing *Proceedings of the Eighteenth Text REtrieval Conference (TREC2009)*. NIST Special Publication 500-xxx. February 2010.
- Kontostathis, April, Andrew Lilly* and Raymond J. Spiteri. (2009). Distributed EDLSI, BM25, and Power Norm at TREC 2008. *Proceedings of the Seventeenth Text REtrieval Conference (TREC2008)*. NIST Special Publication 500-277. February 2009.
- Kontostathis, April, Lynne Edwards, and Amanda Leatherman*. (2009). ChatCoder: Toward the Tracking and Categorization of Internet Predators. In *Proc. Text Mining Workshop 2009 held in conjunction with the Ninth SIAM International Conference on Data Mining (SDM 2009)*. Sparks, NV. May 2009.
- Yin, D., Z. Xue, L. Hong, B. D. Davison, A. Kontostathis, and L. Edwards, Detection of Harassment on Web 2.0 in CAW 2.0 '09: *Proceedings of the 1st Content Analysis in Web 2.0 Workshop*, Madrid, Spain, 2009.
- Kontostathis, April, Lynne Edwards, and Amanda Leatherman*. (2009). Text Mining and Cybercrime *In Text Mining: Application and Theory*. Michael W. Berry and Jacob Kogan, Eds., John Wiley & Sons, Ltd. 2009.
- Kontostathis, April, Lynne Edwards, Jen Bayzick*, India McGhee*, Amanda Leatherman* and Kristina Moore*. (2009). Comparison of Rule-based to Human Analysis of Chat Logs. *1st International Workshop on Mining Social Media (MSM09)*. Seville, Spain. Nov 2009.
- Kulp, Scott* and April Kontostathis. (2008). On Retrieving Legal Files: Shortening Documents and Weeding Out Garbage. *Proceedings of the Sixteenth Text REtrieval Conference (TREC2007)*. NIST Special Publication 500-274. February 2008.
- Kontostathis, April and Scott Kulp*. (2008). The Effect of Normalization When Recall Really Matters. *Proceedings of the 2008 International Conference on Information and Knowledge Engineering*. Las Vegas, NV. July 2008.
- Kontostathis, April. (2007). Essential Dimensions of Latent Semantic Indexing (EDLSI). *Proceedings of the 40th Annual Hawaii International Conference on System Sciences (CD-ROM)*. January 2007. Computer Society Press.
- Kulp, Scott* and April Kontostathis. (2007). On Retrieving Legal Files: Shortening Documents and Weeding Out Garbage. *Proceedings of the Sixteenth Text REtrieval Conference (TREC2007)*. NIST Special Publication 500-274. February 2008.

- Kontostathis, April and William M. Pottenger. (2006). A Framework for Understanding LSI Performance. *Information Processing and Management*. Volume 42, number 1, pages 56-73.
- Waegel, Daniel B*, and April Kontostathis. (2006). Using Query History to Prune Query Results. *Proceedings of Text Mining 2006 Workshop held in conjunction with SIAM Data Mining 2006*. Bethesda, MD.
- Waegel, Daniel B*, and April Kontostathis. (2006). TextMOLE: Text Mining Operations Library and Environment. *Proceedings of the 2006 Technical Symposium on Computer Science Education*. Houston, TX.
- Kontostathis, April, William M. Pottenger, and Brian D. Davison. (2005). Identification of Critical Values in Latent Semantic Indexing (LSI). In T.Y. Lin, S. Ohsuga, C. Liao, X. Hu and S. Tsumoto, editors, *Foundations of Data Mining and Knowledge Discovery*, pages 333-346. Springer-Verlag.
- De, Indro* (April Kontostathis, Faculty Advisor). (2005) Experiments in First Story Detection. *Proceedings of The National Conference On Undergraduate Research (NCUR) 2005*.
- Holzman, L.E.*, Fisher, T.A.*, Galitsky, L. M., Kontostathis, A., and Pottenger, W. M. (2004). A Software Infrastructure for Research in Textual Data Mining. *The International Journal on Artificial Intelligence Tools*. Volume 14, number 4, pages 829-849.
- Kontostathis, April, William M. Pottenger, and Brian D. Davison. (2004). Assessing the Impact of Sparsification on LSI Performance. *Proceedings of the 2004 Grace Hopper Celebration of Women in Computing Conference*. Oct 6-9, 2004. Chicago, IL.
- Mill, William* and April Kontostathis. (2004). Analysis of the Values in the LSI Term-Term Matrix. Technical Report.
- Kontostathis, A., and Sliner, L*. (2004). Use of Visualization to Assist the User with Term Selection for Query Expansion. Technical Report.
- Kontostathis, April, Indro De*, Lars E. Holzman* and William M. Pottenger. (2004). Use of Term Clusters for Emerging Trend Detection. Technical Report.
- Kontostathis, April, Leon Galitsky, Soma Roy, William M. Pottenger and Daniel Phelps. (2003). An overview of Emerging Trends Detection (ETD) in Textual Data Mining., In *A Comprehensive Survey of Text Mining*, Michael Berry, Ed., Springer-Verlag. 2003.
- Kontostathis, April and William M. Pottenger. (2003). A Framework for Understanding LSI Performance. *Proceedings of ACM SIGIR Workshop on Mathematical/Formal Methods in Information Retrieval-ACMSIGIR MF/IR '03*.
- Holzman, L.*, T.A. Fisher*, L.M. Galitsky, A. Kontostathis, and W.M. Pottenger. (2003). A Software Infrastructure for Research in Textual Data Mining. *Proceedings of the fifteenth annual IEEE International Conference on Tools with Artificial Intelligence*.
- Kontostathis, April and William M. Pottenger. (2002). Detecting Patterns in the LSI Term-Term Matrix. *IEEE International Conference on Data Mining 2002 Workshop Proceedings, The Foundation of Data Mining and Knowledge Discovery (FDM02)*.

References available upon request