DAN S. MYERS

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github.com/dansmyers

Education

University of Wisconsin-Madison, Computer Sciences   2008-2014
  Ph.D., June 2014
  Dissertation: *Quantitative Storage System Design*
  Advisors: Mary K. Vernon and Remzi H. Arpaci-Dusseau

University of Florida, Computer Engineering (CISE)   2000-2005
  M.S., December 2005
  Thesis: *Hyperspectral End-Member Detection with Morphological Neural Networks*
  Advisor: Gerhard X. Ritter

  B.S., *summa cum laude*, May 2004

Professional Experience

Rollins College   Winter Park, FL
Associate Professor of Computer Science   2020-Present
Assistant Professor of Computer Science   2014-2020

Chair of Computer Science   2018-2023
Chair of the Division of Sciences   2022-2023
Program Director of Data Analytics   2022-2024

Google   Madison, WI
Internship, Storage Performance Research   2011

Sandia National Laboratories   Albuquerque, NM
Senior Member of Technical Staff   2007-2008
Member of Technical Staff   2006-2007

Book

D.S. Myers. *Data Structures and Algorithms in Java: A Project-Based Approach*. Cambridge University Press. 2024.

Publications

Undergraduate student co-authors at Rollins College are underlined.

With S. Edwards, D. Largent, B. Schaffer et al. "Developing a Playbook of Equitable Grading Practices". To appear in 1st ACM Virtual Global Computing Education Conference (SIGCSE Virtual 2024). 12/2024.

D.S. Myers. "Service Learning and Community Engagement in Computer Science Education: Reviewing Twenty Years of Practice". Abstract in *Proc. of the 2019 Conference of the International Association for Research in Service Learning and Community Engagement* (IARSLCE 2019). Albuquerque, NM, 10/2019.

C. Cheng and D.S. Myers. "Predictive Analytics in the Criminal Justice System: Media Depictions and Framing". In *Proceedings of the 2018 Grace Hopper Celebration of Women in Computing* (GHC 2018). Houston, TX, 9/2018.

D.S. Myers and J. Yellen. "A Multi-Objective Timetabling System That Facilitates Scheduling Across Academic Programs". In *Proceedings of the 12th International Conference on the Practice and Theory of Automated Timetabling* (PATAT 2018). Vienna, Austria, 8/2018.

D.S. Myers . "A Decision Support Framework for Designing Multi-Server Queues with Finite Capacities". In *Proceedings of the 49th Annual Meeting of the Southwest Decision Sciences Institute* (SWDSI 2018). Albuqueruque, NM, 3/2018.

D.S. Myers and N. Chatlani. "Implementing an Adaptive Tutorial System for Coding Literacy Education". *Journal of Computing Sciences in Colleges*. Vol. 33, no. 3. 2018.

S.R. Shrestha, D.S. Myers, and R.A. Lewin. "Optimizing Strategies for Monopoly: the MEGA Edition Using Genetic Algorithms and Simulations". *Academy of Economics and Finance Journal*. Vol. 7. 2017.

D.S. Myers, J. Rickman, J. Yellen, and R. Zere. "Comparing Exact and Heuristic Algorithms for a Course Timetabling Problem". In *Proceedings of the 11th International Conference on the Practice and Theory of Automated Timetabling* (PATAT 2016). Udine, Italy, 8/2016.

N. Chatlani and D.S. Myers. "Implementing an Adaptive Tutorial System for Coding Literacy Education". Abstract in *Proceedings of the 47th ACM Technical Symposium on Computer Science Education* (SIGCSE 2016). Memphis, TN, 3/2016.

S.R. Shrestha, D.S. Myers, and R.A. Lewin. "Towards an Optimal Strategy For Monopoly: The MEGA Edition Using Genetic Algorithms and Simulations". In *Academy of Economics and Finance, Papers and Proceedings*. Pensacola, FL, 2/2016.

D.S. Myers and M.K. Vernon. "Identifying the Causes of High Latencies in Storage Traces with Workload Decomposition and Feature Selection". In *Proceedings of Performance and Capacity 2015*. San Antonio, TX, 11/2015.

D.S. Myers. "Simulating Variability in Sales Pipelines". In *Proceedings of the Southeast INFORMS Annual Meeting 2015* (SEINFORMS 2015). Myrtle Beach, SC, 10/2015.

D.S. Myers. *Quantitative Storage System Design*. Doctoral Dissertation. University of Wisconsin-Madison, 2014.

Y. Zhang, D.S. Myers, A.C. Arpaci-Dusseau, R.H. Arpaci-Dusseau. "Zettabyte Reliability with Flexible End-to-end Data Integrity". In *Proceedings of the 29th IEEE Conference on Massive Data Storage* (MSST '13). Long Beach, CA, 5/2013.

D.S. Myers and M.K. Vernon. "Estimating Queue Length Distributions for Queues with Random Arrivals". *ACM SIGMETRICS Performance Evaluation Review*, v.40 n.3, pp. 77-79, 12/2012.

K.W. Larson, M.J. Procopio, A.I. Gonzales, D.K. Melgaard, F. Rothganger, D.S. Myers, and B.R. Rohrer. "Image Data Processing for Integrated Circuit Analysis". SAND Report 2009-8404. Sandia National Laboratories, Albuquerque, NM, 2009.

D.S. Myers, D.K. Melgaard, P.J. Lewis, and R.H. Byrne. "Impact of wavelet types on image data characteristics during compression". In *Proceedings of Mathematics of Data/Image Pattern Recognition XI*. San Diego, CA, 8/12/2008.

D.S. Myers, A.I. Gonzales, F.H. Rothganger, and K.W. Larson. "Implementing Wide Baseline Matching Algorithms on a Graphics Processing Unit". SAND Report 2007-6301. Sandia National Laboratories, Albuquerque, NM, 2007.

D.S. Myers. "The Synaptic Morphological Perceptron". In *Proceedings of Mathematics of Data/Image Pattern Recognition IX*. San Diego, CA, 8/2006.

L.A. Jensen, J.R. Hipp, R.Q. Villanueava, D.S. Myers, B. Ammons, and J.H. Gauthier. "PGL-Server: development of a stand-alone server-based Earth-model library for seismic monitoring". *In Proceedings from the 28th Seismic Research Review: Ground-Based Nuclear Explosion Monitoring Technologies,* Vol. 1, pp. 976-986, 2006.

D.S. Myers. "Hyperspectral End-Member Detection with Morphological Neural Networks". Master's Thesis, University of Florida. 12/2005.

P.C. Reeves, S. Ballard, J.R. Hipp, C.J. Young, D.S. Myers, and B. Ammons. "Improved representation and calculation of base model travel times using the Parametric Grid Library". In *Proceedings from the 27th Seismic Research Review: Ground-Based Nuclear Explosion Monitoring Technologies,* Vol. 1, pp. 393-402, 2005.

Community Impact Lab White Papers

The Rollins Community Impact Lab brings together community organizations, students, and faculty to conduct collaborative impact assessment projects. Impact Lab white papers summarize the results of our projects. They are developed in consultation with our partners and reviewed by them as part of the collaborative research process.

J. Manchanda, A. Matton, J. McIntyre, M. Stone, J. Temple, J. Alma Turull, and D.S. Myers. "Community Engagement and Service Learning at Rollins College: Perspectives of Our Partners". Collaborative project with the Rollins Center for Leadership and Community Engagement. 8/2024.

J. Acker, R. Barrett, S. DiMarzio, J. Shanahan, S. Taylor, F. Weeden, G. Young-Jack, and D.S. Myers. "The Elar Institute: Developing Emotional Intelligence and Mindfulness Through Connection". Collaborative project with the Elar Institute. 7/2022.

B. Bailey, F. Reyes Espinosa, S. Fulton, P. Gayoso, S. Yunis, and D.S. Myers. "Circles: Combating Generational Poverty Through Community Relationships". Collaborative project with Poverty Solutions Group. 5/2022.

M. Haskell, S. Mehdinia, and D.S. Myers. "Crave of Central Florida: A Leadership Development Program for the 'Spiritually Curious' ". Collaborative project with Crave of Central Florida. 11/2021.

M. Khan, J. Ramirez, and D.S. Myers. "Assessing the Impact of the Victory Cup Initiative Using Ripple Effect Mapping". Collaborative project with the Victory Cup Initiative. 6/2020.

Presentations

With A. Murdaugh. "Combining Reflection and AI for Better Research Papers". Teaching & Learning with AI Conference. Orlando, FL. 7/2024.

"Textbook Writing for Fun, Scholarship and (Maybe) Profit". Rollins College Faculty Day of Scholarship. Winter Park, FL. 2/2024.

"Behind the Scenes of ChatGPT and Artificial Intelligence". Florida Tax Collectors' Association Fall Education Forum. 8/2023.

"Behind the Scenes of ChatGPT and Artificial Intelligence". Keynote presentation for the Florida Public Relations Association's Media Mashup conference. 6/2023.

"Ripple Effect Mapping: Evaluating Community Program Impacts". Rollins College Faculty Day of Scholarship. Winter Park, FL. 1/2022.

"Alternative Grading Systems: Quantitative Comparisons". Rollins College Professor to Professor. Winter Park, FL. 9/2021.

"Scrum for Agile Education: Developing a Signature Pedagogy for Computer Science". 2020 Sunshine State Teaching and Learning Conference. Daytona Beach, FL. 1/2020.

"Research in Service Learning and Community Engagement" (panel discussion). Rollins College Faculty Day of Scholarship. Winter Park, FL. 1/2020.

With V. Summet. "Scrum for Agile Education". Rollins College Faculty Day of Scholarship. Winter Park, FL. 1/2020.

"Service Learning and Community Engagement in Computer Science Education: Reviewing Twenty Years of Practice". 2019 Conference of the International Association for Research on Service Learning and Community Engagement (IARSLCE 2019). Albuquerque, NM, 10/2019.

"Infusing Community Engagement and Social Innovation in General Education". Algernon Sydney Sullivan Foundation Spring Faculty/Staff Summit. Raleigh, NC, 4/2019.

With E. Kenyon, N. Kline, and M. Hein. "That's Great, But How Do I Publish It? Turning Community Engagement Coursework Into Scholarship". Rollins College Faculty Day of Scholarship. Winter Park, FL, 1/2019.

Given by V. Summet. "A Compleat Shakespearean Search Engyne". Nifty Assignment, Consortium for Computing Sciences Southeastern Regional Conference (CCSC: SE) 2018. Roanoke College, Salem, VA, 11/2018.

With N. Garzon, M. Hein, and E. Kenyon. "Taking the LEAP: Infusing Community Engagement in General Education". AAC&U Global Engagement and Spaces of Practice. Seattle, WA, 10/2018.

With C. Cheng. "Predictive Analytics in the Criminal Justice System: Media Depictions and Framing". Poster presentation at the 2018 Grace Hopper Celebration of Women in Computing. Houston, TX, 9/2018.

Organizer, "Community Engagement and Service Learning in Computer Science Education", Birds-of-feather session. ACM Richard Tapia Celebration of Diversity in Computing. Orlando, FL, 9/2018.

Moderator, "Computer Science, Technology, and Social Innovation". Ashoka U Exchange 2018. Boston, MA, 4/2018.

"A Decision Support Framework for Designing Multi-Server Queues with Finite Capacities". Southwest Decision Sciences 2018. Albuquerque, NM, 3/2018.

"Developing a Walking Tour App for the Hannibal Square Neighborhood". Technology and Humanities Camp (THAT Camp) 2018. University of Central Florida, 2/2018.

"Implementing an Adaptive Tutorial System for Coding Literacy Education". Consortium for Computing Sciences Southeastern Regional Conference (CCSC: SE) 2017. Furman University, Greenville, SC, 11/2017.

"Length Distributions and Dynamic Buffer Sizing in Multi-Server Queueing Systems". Southeast Decision Sciences 2017. Charleston, SC, 2/2017

"Using Machine Learning to Understand Storage Performance". Invited research seminar. Florida Southern College. 2/2017.

"Designing an Automated Course Scheduling System". Rollins College Faculty Day of Scholarship. Winter Park, FL, 1/2017.

"Understanding Data". Invited presentation on predictive analytics for Auritas, Inc. Orlando, FL, 3/2016.

With <u>N. Chatlani</u>. "Implementing an Adaptive Tutorial System for Coding Literacy Education". Poster presentation at SIGCSE 2016. Memphis, TN, 3/2016.

With <u>S.R. Shrestha</u> and R.A. Lewin. "Optimal Strategy for Monopoly: The Mega Edition Using Genetic Algorithms and Simulations". Academy of Economics and Finance, 42nd Annual Meeting. Pensacola, Fl, 2/2016.

"Identifying the Root Causes of High Latencies in Commercial Storage Workloads". Rollins College Faculty Day of Scholarship. Winter Park, FL, 1/2016.

"Identifying the Causes of High Latencies in Storage Traces with Workload Decomposition and Feature Selection". Performance and Capacity 2015. San Antonio, TX, 11/2015.

"Simulating Variability in Sales Pipelines". Southeast INFORMS Annual Meeting 2015. Myrtle Beach, SC, 10/2015.

"Quantitative Design of Storage Systems". Invited Talk. Google Madison. Madison, WI, 11/2013

"Estimating Queue Length Distributions for Queues with Random Arrivals". Mathematics of Modeling and Analysis (MAMA 2012). London, UK, 6/2012.

"Performance Models for Google's Storage Infrastructure". Google Madison. Madison, WI, 9/2011

"Performance Models for Google's Storage Infrastructure". Google Storage Performance Research Group. 9/2011

"The Synaptic Morphological Perceptron". Mathematics of Data/Image Pattern Recognition IX. San Diego, CA, 8/2006.

Media

Interviewed by Beth McMurtrie. "The Future Is Hybrid: Colleges begin to reimagine learning in an AI world". *Chronicle of Higher Education*. 10/3/2024. *Highlighted discussion of AI-supported writing assignments with Anne Murdaugh and my changes to the introductory programming course*.

Interviewed by Sanika Dange. "Rise of the Machines: Will AI Replace Your Job?". WESH 2 News. 7/11/2024.

Interviewed by Danielle Prieur. "Orange County Public Schools Are the Latest Victim of Zoombombing: What Is It and How Can Teachers Protect Their Students?". WMFE. 4/3/2020.

"The Promise and Peril of Artificial Intelligence". Panel discussion for WMFE's *Intersection*. First aired 9/19/2019.

"Music Lessons". Profile in *Rollins Magazine* by A. St. Clair. 11/2018.

"Course Spotlight: Creating the Digital Future". *Rollins 360,* 11/2017.

Interviewed by Rob Humphreys for an article on the igniteCS mentoring program at Fern Creek Elementary School. "Igniting Kids' Imagination Through Computer Science". *Rollins 360,* 3/2017.

Interviewed by G. Dawson for an article on queueing and lines. "The Bottom Line". . *Orlando Magazine,* 2/2015.

Fellowships, Grants, and Awards

Leadership team member. "Rollins Inclusive Excellence in Science: A Comprehensive Shift Toward Achievement-oriented Thinking and Practices". Howard Hughes Medical Institute, 2022. $517,500.

Arthur Vining Davis Fellowship. Rollins College. 2019-2020.

Social Innovation & Entrepreneurship Faculty Fellowship. Algernon Sydney Sullivan Foundation. 2018-2021.

Recognition for excellence in faculty-student advising, 2016-2020 (five years).

C. Cheng and D.S. Myers (faculty advisor). "Investigating the Qualities of Hit Songs Using Data Analytics". Rollins College Student-Faculty Collaborative Scholarship Program, 2017. $6500.

S. Sadeh, J.A. Contino, and D.S. Myers (faculty advisor). "Establishing an After-School Computer Science Program at Fern Creek Elementary School". Google igniteCS, 2016. $1100.

R. Zere, N. Chatlani, and D.S. Myers (faculty advisor). "Designing and Implementing a Decision Support System for Course Timetabling". Rollins College Student-Faculty Collaborative Scholarship Program, 2016. $13000.

D.S. Myers. "Implementing an Adaptive Tutorial System for Coding Literacy Education". Mindlin Foundation, 2015. $2500.

S.R. Shrestha and D.S. Myers (faculty advisor). "Genetic Algorithm Optimization of Monopoly: the MEGA Edition". Rollins College Student-Faculty Collaborative Scholarship Program, 2015. $6325.

N. Chatlani, and D.S. Myers (faculty advisor). "Adaptive Tutorial Systems for Coding Literacy Education". Rollins College Student-Faculty Collaborative Scholarship Program, 2015. $6325.

SIGMETRICS/Performance Travel Grant, 2012. $1000.

University of Wisconsin Alumni Scholarship, 2008.

Phi Kappa Phi, 2003

Tau Beta Pi National Engineering Honor Society, 2001.

Teaching

Rollins College

Introduction to Computer Science	2024-2019
Ancient Algorithms[††]	2024
Programming and Software Development	2024, 2022-2020
Artificial Intelligence	2024, 2017
Theoretical Foundations of CS	2023
Computer Organization and Architecture	2023, 2022, 2017-2015
Networks	2023, 2020, 2018, 2014
Predictive Modeling and Generative AI[†]	2023
Consulting in the Community[†]	2022
Fundamentals of Data Science and Analytics	2020
Simulation and Stochastic Modeling	2020-2018
CS Project Design Studio	2020
Algorithms	2020
Data Structures and Algorithms	2020-2018, 2015, 2014

Deep Learning	2019
Business Applications of Computer Science	2018
System Software Principles	2018-2016
Digital Media, the Web, and Coding†	2017
Creating the Future†	2016
Computer Security	2016
Starting a Tech Company†	2015
Advanced Computer Systems	2014

† General education course
†† Honors program course

University of Wisconsin-Madison

Operating Systems	2014, 2013
Computer Systems Modeling Fundamentals	2012
Linear Programming (Teaching Assistant)	2009

Wisconsin Center for Academically Talented Youth (WCATY)

Intro to Computer Science	2013-2009 (five summers)

Student Theses and Research Projects

Aakriti Shah, Gus Temple, and James McIntyre　2023-2024
Using Large Language Models for Community Program Evaluation　Honors Theses

Eric Grimm and Nikola Vuckovic　2020-2021
Language Generation Models for Stuttering Therapy Applications　Honors Theses

Muniba Khan　2019-2020
Victory Cup Initiative: Impact Assessment of a Nonprofit Accelerator　Honors Thesis

Heidi Po　2019-2020
Assessing the Impact of Dance on Children with Disabilities　Honors Thesis

Jaysa Ramirez　2018-2020
Data Analytics for Community Organizations　Student-Faculty Research

Brandt Smith　2018-2019
Automatically Generating Full-Stack Web Apps　Honors Thesis

Zoe Kim   2018
Performance Modeling and Analysis of Bitcoin Transactions   Honors Thesis

Carmen Cheng   2017-2018
Media Representations of AI and Analytics in the Justice System   Honors Thesis
Investigating Hit Songs Using Data Analytics   Student-Faculty Research

Sam Sadeh   2017-2018
Attitudes and Experiences of Mentors in an After-School CS Program Honors Thesis

Neeraj Chatlani   2015-2018
Generating Pedagogically Useful Random Programs   Honors Thesis
User-Centered Design of a Course-Timetabling Interface Student-Faculty Research
Adaptive Tutorial Systems for Coding Literacy Education Student-Faculty Research

Ruzgar Zere   2016-2018
Implementing a Decision Support System for Course Scheduling   Honors Thesis
Comparing Exact and Heuristic Timetabling Algorithms   Student-Faculty Research

Shree Raj Shrestha   2015-2017
Algorithms for Course Timetabling Problems   Honors Thesis
Genetic Optimization of Monopoly: the MEGA Edition   Student-Faculty Research

Joseph Young   2015
Intelligent Agents in Game Development   Honors Thesis

Student Placements

Post-graduation positions of selected advisees and student researchers.

Aakriti Shah – U. Southern California M.S.   2024
Mariah Haskell – Universal Creative   2022
Jaysa Ramirez – LAIKA Studios   2021
Nikola Vuckovic – Florida State University Ph.D.   2021
Eric Grimm – National Security Agency   2021
Heidi Po – EA   2020
Muniba Khan – Accenture   2020
Sam Sadeh — Harvard M.S. in Technology, Innovation, and Education   2019
Neeraj Chatlani — University of Central Florida Ph.D.   2019
Carmen Cheng — Apple   2018

Alexandra DeLucia — Los Alamos National Labs and Johns Hopkins Ph.D.	2018
Ruzgar Zere — Cornell Tech M.A.	2018
Brandon Johnson — University of San Francisco M.S.	2018
Gerardo (Jerry) Abril — Crummer Graduate School of Business MBA	2018
Shree Raj Shrestha — Amazon	2017

Professional Leadership and Service

ACM SIGCSE equitable grading working group	2024
Associated Colleges of the South Liberal Arts and AI working group	2024
SIGCSE Program Committee (reviewer)	2019-Present
Public and community-engaged scholarship working group	2018-Present
Data Analytics minor proposal development committee	2018-2019
Faculty advisor, igniteCS after-school mentoring program	2017-2019
Social Innovation major proposal development committee	2017
Social Innovation and Entrepreneurship steering committee	2016-Present
"Mayor" of the Innovate, Create, Elevate general education neighborhood	2016-2018
Reviewer for *Expert Systems with Applications*	2017-Present
Faculty member, Ashoka U Changemaker Campus renewal initiative	2016
Finance and Services Committee	2015-2016
Reviewer for *The Computer Journal*	2012-2014
Reviewer for *IEEE Trans. on Signal Processing*	2009-2011
UW-Madison graduate admissions committee	2009

Professional Development

Associated Colleges of the South Mid-Career Faculty Workshop	2022
Course Redesign Workshop	2019
Associated Colleges of the South Teaching Workshop	2018
Digital Literacy and Collaborative Learning Workshop	2017

Search Committees

Tenure-track assistant professor of computer science	2024-2025
Tenure-track AI librarian (external member)	2024
Tenure-track assistant professor of computer science (chair)	2022-2023
Tenure-track assistant professor of computer science (chair)	2018-2019
Tenure-track assistant professor of computer science	2017-2018
Visiting assistant professor of computer science	2017
Tenure-track assistant professor of computer science	2015-2016
Visiting assistant professor of computer science	2015

Music

Florida Old-Time Music Championship, flatpicking guitar: first prize	2015
Florida Old-Time Music Championship, fingerpicking guitar: second prize	2015
Madison Shape-Note Singers	2011-2014
UW-Madison Collegium Musicum, viola da gamba and lute	2008-2009
Santa Fe Bluegrass Festival, flatpicking guitar: first prize	2007
Edgewood Bluegrass Festival (Edgewood, NM), guitar: runner-up	2007
Santa Fe Bluegrass Festival, misc. instruments (fingerstyle guitar): first prize	2006
"Daniel Myers: New Traditionalism", profile in *Frets* magazine	2006
University of Florida Orchestra, cello	2000-2002