## DAN S. MYERS

dmyers@rollins.edu 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 Associate Professor of Computer Science Assistant Professor of Computer Science | Winter Park, FL<br>2020-Present<br>2014-2020 |
|---|--|
| Chair of Computer Science   | 2018-2023                                    |
| Chair of the Division of Sciences   | 2022-2023                                    |
| Program Director of Data Analytics  | 2022-2024                                    |
| <b>Google</b>   | Madison, WI                                  |
| Internship, Storage Performance Research  | 2011   |
| Sandia National Laboratories Senior Member of Technical Staff Member of Technical Staff         | Albuquerque, NM<br>2007-2008<br>2006-2007    |

#### Book

D.S. Myers. *Data Structures and Algorithms in Java: A Project-Based Approach*. Cambridge University Press. 2025.

### **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.
- <u>C. Cheng</u> 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 <u>N. Chatlani</u>. "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 <u>R. Zere</u>. "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.

- <u>J. Manchanda</u>, A. Matton, <u>J. McIntyre</u>, <u>M. Stone</u>, <u>J. Temple</u>, <u>J. Alma Turull</u>, 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.
- <u>J. Acker, R. Barrett, S. DiMarzio, J. Shanahan, S. Taylor, F. Weeden, G. Young-Jack, and D.S. Myers.</u> "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 <u>C. Cheng</u>. "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 N. Chatlani. "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

Cornell Distinguished Faculty Award. Rollins College, 2024-2025.

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.

National Merit Scholar, 1999-2000.

## **Teaching**

#### **Rollins College**

| Introduction to Computer Science                   | 2024-2019              |
|--|------------------------|
| Ancient Algorithms <sup>††</sup>                   | 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 <sup>†</sup> | 2023                   |
| Consulting in the Community <sup>†</sup>           | 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 <sup>†</sup> | 2017                  |
| Creating the Future <sup>†</sup>                | 2016                  |
| Computer Security                               | 2016                  |
| Starting a Tech Company <sup>†</sup>            | 2015                  |
| Advanced Computer Systems                       | 2014                  |
|   |                       |

<sup>†</sup> General education 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 Using Large Language Models for Community Program Evalua | 2023-2024<br>ation Honors Theses      |
|---|---------------------------------------|
| Eric Grimm and Nikola Vuckovic  Language Generation Models for Stuttering Therapy Application         | 2020-2021 Honors Theses               |
| Muniba Khan<br>Victory Cup Initiative: Impact Assessment of a Nonprofit Acce                          | 2019-2020<br>lerator Honors Thesis    |
| <b>Heidi Po</b> Assessing the Impact of Dance on Children with Disabilities                           | 2019-2020<br>Honors Thesis            |
| Jaysa Ramirez Data Analytics for Community Organizations  | 2018-2020<br>Student-Faculty Research |

 $<sup>^{\</sup>dagger\dagger}$  Honors program course

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

User-Centered Design of a Course-Timetabling Interface

Adaptive Tutorial Systems for Coding Literacy Education

Honors Thesis

Student-Faculty Research

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 |