LINA BATTESTILLI

Full Teaching Professor, Department of Computer Science, NC State University
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EDUCATION

Ph.D. in Computer Science, NC State University, Raleigh, NC — *Dec. 2005*
Dissertation: *"Performance Analysis of Optical Burst Switched Networks with Dynamic Simultaneous Link Possession"*, Advisor: Dr. Harry Perros
M.S. in Computer Networking, NC State University, Raleigh, NC — *Jul. 2002*
B.S. in Electrical Engineering/Applied Math, Kettering University, Flint, MI — *May 1999*

EXPERIENCE

Full Teaching Professor, NC State, Raleigh, NC — *2024-present*
Associate Teaching Professor, NC State, Raleigh, NC — *2019-2024*
Assistant Teaching Professor, NC State, Raleigh, NC — *2012-2019*
Network Research Engineer, IBM Research, Research Triangle Park, NC — *2008-2011*
Research Scientist, MCNC, Research Triangle Park, NC — *2005-2008*
Research Assistant, NC State, Raleigh, NC — *2002-2005*
Teaching Assistant, NC State, Raleigh, NC — *2000-2002*
System Engineer, Electronic Data Systems, Troy, MI — *1998-2000*

HONORS AND AWARDS

NC State COE Wolfpack Engineering Unleashed Gold Level	2024
NC State Outstanding Teacher Award	2023
NC State DELTA Faculty Fellow	2020-2022
3C Cultural Competence in Computing Fellow	2021-2022
NC State CSC Person of Exceptional Performance Award	2020-2021
NC State COE WMEP Best Online Pivot Award	2021
NC State CSC Carla Savage Award	2021
NC State Equity for Women Award Nominee	2020
NC State "Thank a Teacher"	2017
ACM/AITP "Carol Miller Outstanding Undergraduate Lecturer Award"	2016
NC State Nancy G. Pollock University-wide Best Dissertation Award	2006
IBM PhD Fellow	2002-2003
GE-Faculty For Future Teaching Fellow	2001-2002
AT&T Solutions Fellow	2000-2001

CURRICULUM DEVELOPMENT, COURSE DESIGN, COURSES TAUGHT

I have developed and taught a range of computer science courses, including introductory programming (for majors and engineering majors), upper-level electives, and the undergraduate capstone course.

- **CSC113 Introduction to Computing MATLAB: 2012-2025 each Fall & Spring, Distance Education Online section 2021-2025 each Spring**
  I *created the CSC113 course* in Fall 2012, which is a required, computing course for Mechanical and Aerospace engineering students and it is also taken by other engineering undergrads. Enrollment is about 250-350 students per semester with around 15-17 undergraduate TAs, who teach the Lab

sections (40 students, 2 TAs) and I am the sole main instructor. In 2018, I *redesigned the course* (supported by NC State's redesign grant) by adopting flipped classroom, creating 75 short, captioned videos that explain each topic and have worked out coding examples, autograded self-checked multiple choice questions, autograded small programming questions. I continue to innovate my pedagogy in this course and have published in multiple CS Education conferences on topics such as the effectiveness of flipped classrooms, online forums, student help-seeking, and providing hybrid attendance flexibility.

- **CSC492 Senior Design: 2016-2025 each Fall & Spring**
  This core course is the final capstone course for undergraduate Computer Science students. As a Technical Adviser, I typically work with 7-10 teams (4-5 students per team) on industry sponsored projects. Project topics include: web-development using modern technologies to visualize and store data, applied machine learning, working with systems and services from the Cloud, IoT devices (microcontrollers, various sensors), game development, Mobile App development (IoS, Android), virtualization (VMs, Docker Containers), REST APIs, etc. A few selected projects that show the variety of projects I have advised in Senior Design:
  - 2024 Fall Bandwidth: Using genAI to create README files based on github repos
  - 2024 Fall NetApp: Machine Learning for Network Health Prediction
  - 2024 Spring LexisNexis: Newsletter generation using RAG and an LLM
  - 2022-2025 Game2Learn: learning management system based on !Snap block programming
  - 2023 Fall MCAfee: Web browser Extension for of harmful themes and AI-generated content.
  - 2023 Spring Merck: AI for Detection of Fake Drug Labels
  - 2022 Fall NetApp: 40Gbps Long Distance Network Emulator
  - 2022 Spring Merck: Supply Chain Risk-Based Decision Expert System
  - 2020 Fall: Database for the research at NC State's Mobile Gaming Research Lab
  - 2019 Fall: [FIRST Tech Challenge] Live Scoring
  - 2019 Fall: Bandwidth Network Usage Data Mining (Hadoop, Hive, Kafka, Elasticsearch)
  - 2018 Spring NCSU: Website Scheduler for EcoPRT
  - 2018 Spring Cisco: X.509 Certificate Revocation, read the blog.
  - 2017 Fall Cisco: Lightweight crypto Validation and Assessment, read more in this blog.
  - 2017/2018: Worked with a local nonprofit NC Collaborative on a web application that would allow the nonprofit to do online training associated with quiz/assessment and user management.
  - Fall 2016 Principled Technology: Prototype of a Virtual Reality Game developed in Unity as a Performance Benchmark, press release
- **CSC401 Introduction to Data Communication Networks: 2015-2022**
  I redesigned this upper-level networking elective and was the course coordinator from 2018 to 2022. This course had enrollment of about 60 junior or senior CS undergraduates. I adopted the top-down approach (from application-layer to physical-layer) and added modern topics such as Software Defined Networking, Content Distribution Networks, Internet of Things, etc. The students gained both theoretical and practical networking skills.
- **Undergraduate Course: Well-Being Strategies for College and Life: 2024**
  This course was inspired by the growing global interest in evidence-based strategies for improving life satisfaction, drawing on work by Dr. Laurie Santos (Yale) and Dr. Laurie Williams (NC State). It covered research-backed insights into happiness, debunked common myths, and offered practical strategies for well-being. Students engaged in discussions, self-reflection, and completed weekly "Course Rewirements"—guided activities like gratitude journaling, acts of kindness, and meditation—to build habits that boost happiness, health, and resilience. In Fall 2024, 17 undergraduate computer science students participated in the course.
- **CSC116 Introduction to Computing JAVA: 2013 to 2017**
  This is the CS1 core course for CS majors. The focus of the course is on algorithm development, problem solving and methodical development of Java applications from specifications; documentation and style; appropriate use of control structures; classes and methods; data types and data abstraction; object-oriented programming and design; graphical user interface design.

GRADUATE AND UNDERGRADUATE STUDENTS

PhD Advisor

- [F22-S23] Matthew Zahn - co-advised with Dr. Sarah Heckman

Undergraduates/Masters Funded Research

- [Sum23] Emmy Truong (REU)
- [Sum23] Corrine McGuire (WMEP Scholarship)
- [Sum21, Sum22] Matthew Zahn (RA)
- [Sum22] Reba Aliah Mathews(REU)
- [Sum22] Pratik Bairoliya(REU)
- [S21] Chirag Jagdish Gunjal (REU)
- [S20] Colin Moore (DELTA)
- [Sum18] Sarah Korkes (REU)
- [Sum18] Olivia Smith (DREU)
- [Sum16] Tam Le (DREU)

Undergraduate Research & Software Development Projects (CSC492 and CSC499)

- [S25] Joshua Ijaola (BS)
- [F24, S25] Meseker Worku Kebede (BS)
- [F24, S25] Faris Soliman (BS)
- [S24,Sum24, F24] Sanjana Ponnapalli (BS)
- [S24] Gabriel Perez-Botello (BS)
- [F23] Madison Book(BS)
- [F22, S23] Benjamin Lewis(BS)
- [F22] Brody Bond(BS)
- [S22] Michael Barger(BS)
- [F21] Christina Guirguis(BS)
- [S21] Jacob DeCicco (BS)
- [F19] Maanasa Thyagarian (BS)
- [F19] Kirtan Patel (BS)
- [F19] Pooja Bhinge (BS)
- [S19] Sarah Korkes (BS)
- [S17] Apeksha Awasthi (BS)

Mentoring

- [F25]Benyamin T. Tabarsi(PhD Student)- Preparing the Professoriate CSC113
- [F20]Shailaja Mallick(PhD)- Mentored Teaching Assitanship Course CSC401

PhD & MS Committee Membership

- [2024-present] Heidi Reichert, PhD in Computer Science
- [2023-present] Madison Thomas, PhD in Computer Science
- [2023-present] Erynn Elmore, PhD in Computer Science
- [2022-present] Rachel Harred, PhD in Computer Science
- [2023-present] Gabriel Silva de Oliveira, PhD in Computer Science
- [2023-present] Amy Isvik, PhD in Computer Science
- [2022] Ragan Glover, PhD in Communication, Rhetoric and Digital Media
- [2021] Yihuan Dong, PhD in Computer Science
- [2015] Savera Tanwir's, PhD in Computer Science
- [2015] Debanjana Nayak, MS in Computer Science, NCSU
- [2014] Ramachandra Kasyap Marmavul, MS in Computer Science, NCSU

PUBLICATIONS

Refereed Conference Publications, (Total = 25)

[1] Shao-Heng Ko, Kristin Stephens-Martinez, Matthew Zahn*, Yesenia Velasco, Lina Battestilli, and Sarah Heckman. "Student Perceptions of the Help Resource Landscape". In: *Proceedings of the 56th ACM Technical Symposium on Computer Science Education V.1*. SIGCSE TS 2025. Pittsburgh, PA, USA: Association for Computing Machinery, 2025, TBD. ISBN: TBD. DOI: TBD.

[2] Madison Book*, Lina Battestilli, Sarah Khan, and Elaine Bohórquez. "Investigating Academic Confidence, Workload Stress, and Performance in a BlendFlex Computer Science Course". In: *Proceedings of the 2024 on Innovation and Technology in Computer Science Education V. 1*. ITiCSE 2024. Acceptance Rate 27%. Milan, Italy: Association for Computing Machinery, 2024, pp. 583–589. ISBN: 9798400706004. DOI: 10.1145/3649217.3653606.

[3] Matthew Zahn*, Sarah Heckman, and Lina Battestilli. "Investigating Students' Perspectives on the Value of Help-Seeking Resources in CS Education". In: *Proceedings of the 2024 on ACM Virtual Global Computing Education Conference V. 1*. SIGCSE Virtual 2024. Virtual Event, NC, USA: Association for Computing Machinery, 2024, pp. 256–262. ISBN: 9798400705984. DOI: 10.1145/3649165.3690130.

[4] Lina Battestilli, Elaine B. Bohórquez, Sarah Khan, and Cigdem Meral. "Exploring Students' Perceptions and Engagement in Hybrid Flexible Courses". In: *Proceedings of the Tenth ACM Conference on Learning @ Scale*. L@S '23. Copenhagen, Denmark: Association for Computing Machinery, 2023, pp. 110–119. ISBN: 9798400700255. DOI: 10.1145/3573051.3593383.

[5] Matthew Zahn*, Isabella Gransbury, Sarah Heckman, and Lina Battestilli. "Assessment of Self-Identified Learning Struggles in CS2 Programming Assignments". In: *Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education V. 1*. ITiCSE 2023. Turku, Finland: Association for Computing Machinery, 2023, pp. 264–270. ISBN: 9798400701382. DOI: 10.1145/3587102.3588786. URL: https://doi.org/10.1145/3587102.3588786.

[6] Bita Akram, Susan Fisk, Spencer Yoder, Cynthia Hunt, Thomas Price, Lina Battestilli, and Tiffany Barnes. "Increasing Students' Persistence in Computer Science through a Lightweight Scalable Intervention". In: *Proceedings of the 27th ACM Conference on on Innovation and Technology in Computer Science Education Vol. 1*. ITiCSE '22. Dublin, Ireland, July 2022. DOI: 10.1145/3502718.3524815.

[7] Lina Battestilli, Matthew Zahn, and Sarah Heckman. "Academic Help Seeking Patterns in Introductory Computer Science Courses". In: *2022 ASEE Annual Conference & Exposition*. ASEE Conferences, July 2022. URL: https://peer.asee.org/41526.

[8] Cynthia Hunt, Spencer Yoder, Taylor Comment, Thomas Price, Bita Akram, Lina Battestilli, Tiffany Barnes, and Susan Fisk. "Gender, Self-Assessment, and Persistence in Computing: How Gender Differences in Self-Assessed Ability Reduce Women's Persistence in Computer Science". In: *Proceedings of the 2022 ACM Conference on International Computing Education Research - Volume 1*. ICER '22. Lugano and Virtual Event, Switzerland: Association for Computing Machinery, Aug. 2022. DOI: 10.1145/3501385.3543963.

[9] Susan R. Fisk, Tiah Wingate, Lina Battestilli, and Kathryn T. Stolee. "Increasing Women's Persistence in Computer Science by Decreasing Gendered Self-Assessments of Computing Ability". In: *Proceedings of the 26th ACM Conference on Innovation and Technology in Computer Science Education V. 1*. ITiCSE'21. Virtual Online: ACM, 2021. URL: https://doi-org.prox.lib.ncsu.edu/10.1145/3430665.3456374.

[10] Colin Moore, Lina Battestilli, and Ignacio X Dominguez. "**Finding Video-watching Behavior Patterns in a Flipped CS1 Course** ". In: *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education*. SIGCSE TS '21. ACM, 2021. URL: https://doi-org.prox.lib.ncsu.edu/10.1145/3408877.3432359.

[11] Lina Battestilli and Sarah Korkes. "**Writing Effective Autograded Exercises Using Bloom's Taxonomy**". In: *2020 ASEE Virtual Annual Conference Content Access*. 10.18260/1-2–35711. Virtual Online: ASEE Conferences, June 2020.

[12] S. Fisk, K. T. Stolee, and L. Battestilli. "**A Lightweight Intervention to Decrease Gender Bias in Student Evaluations of Teaching**". In: *2020 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*. Vol. 1. 2020, pp. 1–4. DOI: 10.1109/RESPECT49803.2020.9272454.

[13] Lina Battestilli, Larry Silverberg, Jeffrey Eischen, and Caleb Thomas. "CADApps: MATLAB Apps for Core Courses in Aerospace and Mechanical Engineering Curricula". In: *Proceedings of the ASEE-SE 2019*. Raleigh, NC, USA, 2019.

[14] Lina Battestilli, Apeksha Awasthi, and Yingjun Cao. "Two-Stage Programming Projects: Individual Work Followed by Peer Collaboration". In: *Proceedings of the 49th ACM Technical Symposium on Computer Science Education*. SIGCSE '18. Baltimore, Maryland, USA: Association for Computing Machinery, 2018, pp. 479–484. ISBN: 9781450351034. DOI: 10.1145/3159450.3159486.

[15] A. Villa-Parrish, T. Ballards, L. Battestilli, H. Queen, J. Schmidt, and S Carson. "TH!NK: A Framework to Assess and Support Critical and Creative Thinking". In: *Proceedings of the 2016 ASEE Annual Conference*. ASEE Conferences, June 2016.

[16] L. Battestilli, T. Nelms, S. W. Hunter, and G. Shippy. "High-performing scale-out solution for deep packet processing via adaptive load-balancing". In: *Proceedings of the 18th IEEE Workshop on Local and Metropolitan Area Networks (LANMAN 2011)*. **Best Paper Award**. 2011. DOI: 10.1109/LANMAN.2011.6076946.

[17] Lina Battestilli and Harry Perros. "Performance Evaluation of an OBS Network as a TandemNetwork of IPP/M/W/W Nodes". In: *Proceedings of the 4th Asia-Pacific International Symposium on Advanced Reliability and Maintenance Modelling(APARM 2010)*. Wellington, New Zealand, 2010.

[18] G. Karmous-Edwards, A. Vishwanath, D. Reeves, L. Battestilli, P. Vegesna, and G. N. Rouskas. "ERONs: Dynamic lightpath networking via overlay control of static optical connections". In: *Proceedings of the 13th Conference of Optical Network Design and Modeling (ONDM 2009)*. Braunschweig, Germany, 2009.

[19] F. Arshad, S. R. Ramay, S. Tanwir, L. Battestilli, and S. M. H. Zaidi. "Advance Reservation and Dynamic Scheduling of Point to Multipoint Lightpaths". In: *2008 International Symposium on High Capacity Optical Networks and Enabling Technologies (IEEE Honet'08)*. 2008, pp. 69–74. DOI: 10.1109/HONET.2008.4810211.

[20] L. Battestilli, A. Hutanu, G. Karmous-Edwards, D. S. Katz, J. MacLaren, J. Mambretti, J. H. Moore, S. Park, H. G. Perros, S. Sundar, S. Tanwir, S. R. Thorpe, and Yufeng Xin. "EnLIGHTened Computing: An architecture for co-allocating network, compute, and other grid resources for high-end applications". In: *2007 International Symposium on High Capacity Optical Networks and Enabling Technologies (IEEE Honet'07)*. 2007, pp. 1–8. DOI: 10.1109/HONET.2007.4600261.

[21] Steven R. Thorpe, Lina Battestilli, Gigi Karmous-Edwards, Andrei Hutanu, Jon MacLaren, Joe Mambretti, John H. Moore, Kamaraju Syam Sundar, Yufeng Xin, Atsuko Takefusa, Michiaki Hayashi, Akira Hirano, Shuichi Okamoto, Tomohiro Kudoh, Takahiro Miyamoto, Yukio Tsukishima, Tomohiro Otani, Hidemoto Nakada, Hideaki Tanaka, Atsushi Taniguchi, Yasunori Sameshima, and Masahiko Jinno. "G-Lambda and EnLIGHTened: Wrapped in Middleware Co-Allocating Compute and Network Resources across Japan and the US". In: GridNets '07. Lyon, France: ICST, 2007.

[22] Yufeng Xin, Lina Battestilli, and Gigi Karmous-Edwards. "Generic optical network provisioning services to support emerging grid applications". In: *2007 Fourth International Conference on Broadband Communications, Networks and Systems (BROADNETS '07)*. 2007, pp. 131–140. DOI: 10.1109/BROADNETS.2007.4550416.

[23] S. Tanwir, L. Battestilli, H. Perros, and G. Karmous-Edwards. "Monitoring and Discovery for EnLIGHTened Computing". In: *Proceedings of IEEE High Capacity Optical Networks'06 Conference*. Charlotte, NC, 2006.

[24] Lina Battestilli and Harry Perros. "End-To-End Burst Loss Probabilities in an OBS Network with Simultaneous Link Possession". In: *Proceedings of the Third International Workshop on Optical Burst Switching, WOBS3 (co-located with Broadnets 2004)*. San Jose, CA, 2004.

[25] Srinivas R. Chakravarthy and T. Dimitrova (my maiden name). "Service Control of a Queueing System with Nonrenewal Arrivals and Phase Type Services". In: *Proceedings of the International Mathematica Symposium*. Southampton, England, 1995.

Refereed Journal Articles, (Total = 7)

[26] E. B. Bohorquez, S. Khan, L. Battestilli, and A. Fogleman. "Measuring Student Engagment in a HyFlex Environment." In: *IMPact 2023 e-Journal of Higher Education Research* 6.3 (2023). ISSN: 2516-7561.

[27] Lina Battestilli, Harry Perros, and Stefanka Chukova. "Performance evaluation of an OBS network as a IPP/M/W/W network". In: *Applied Mathematical Modelling* 39.3 (2015), pp. 965–981. ISSN: 0307-904X. DOI: 10.1016/j.apm.2014.07.016.

[28] L. Battestilli, H. Perros, and S. Chukova. "Burst lost probabilities in a queuing network with simultaneous resource possession: a single-node decomposition approach". In: *IET Communications* 3.3 (Mar. 2009), pp. 441–453.

[29] G. Karmous-Edwards, A. Vishwanath, D. S. Reeves, L. Battestilli, P. B. Vegesna, and G. N. Rouskas. "Edge-Reconfigurable Optical Networks (ERONs): Rationale, Network Design, and Evaluation". In: *Journal of Lightwave Technology* 27.12 (2009), pp. 1837–1845. DOI: 10.1109/JLT.2009.2021279.

[30] Savera Tanwir, Lina Battestilli, Harry Perros, and Gigi Karmous-Edwards. "Dynamic Scheduling of Network Resources with Advance Reservations in Optical Grids". In: *Int. J. Netw. Manag.* 18.2 (Mar. 2008), pp. 79–105. ISSN: 1099-1190. DOI: 10.1002/nem.680. URL: https://doi-org.prox.lib.ncsu.edu/10.1002/nem.680.

[31] Y. Xin and L. Battestilli. "A performance study on optical burst switched networks: the ring topology". In: *Photonic Network Communications* (2007). URL: https://doi.org/10.1007/s11107-007-0061-6.

[32] Tzvetelina Battestilli and Harry Perros. "A Performance Study of an Optical Burst Switched Network with Dynamic Simultaneous Link Possession". In: *Comput. Netw.* 50.2 (Feb. 2006), pp. 219–236. ISSN: 1389-1286.

Book Chapters, (Total = 2)

[33] Lina Battestilli and Harry Perros. "Computer System Performance Modeling in Perspective: A Tribute to the Work of Professor Kenneth C. Sevcik". In: ed. by E. Gelenbe. Imperial College Press, London, 2006. Chap. Burst loss probabilities in an OBS network with dynamic simultaneous link possession, pp. 205–225.

[34] G. Karmous-Edwards, J. Mambretti, D. Simeonidou, A. Jukan, T. Battestilli, H. Perros, Y. Xin, and J. Strand. "Grid Networks: Enabling Grids with Advanced Communication Technology". In: ed. by F. Travostino, J. Mambretti, and G. Karmous-Edwards. Wiley, 2006. Chap. Grid Networks and Layer 1 Services, pp. 217–252.

Refereed Posters and Abstracts, (Total = 5)

[35] Lina Battestilli, Elaine Bohórquez, and Sarah Khan Khan. "Evaluating Hybrid - Flexible Instruction: A Cross Semester, Cross Discipline Analysis". In: *NC State Conference on Faculty Excellence*. Raleigh, NC, 2024.

[36] Lina Battestilli and Ignacio X. Dominguez. "Student Online Activity Patterns in a Flipped Course". In: *NCSU Teaching and Learning Symposium*. Raleigh, NC, Feb. 2020.

[37] Lina Battestilli, Ignacio X. Dominguez, and Maanasa Thyagarajan. "**Toward Finding Online Activity Patterns in a Flipped Programming Course**". In: SIGCSE '20. Portland, OR, USA: ACM, 2020, p. 1345. DOI: 10.1145/3328778.3372626.

[38] Lina Battestilli, Sarah Korkes, Olivia Smith, and Tiffany Barnes. "Using Bloom's Taxonomy to Write Effective Programming Questions for Autograding Tools". In: *Proceedings of the 50th ACM Technical Symposium on Computer Science Education*. SIGCSE '19. Minneapolis, MN, USA: ACM, 2019. DOI: 10.1145/3287324.3293858.

[39] Lina Battestilli and Tam Le. "The Value of Organized Study Groups in Large Classes". In: *NCSU Teaching and Learning Symposium*. Raleigh, NC, 2017.

Refereed Panels, Workshops, BoFs, Events (Total = 6)

[40] Susan Fisk, Cynthia Hunt, Lina Battestilli, Bita Akram, Tiffany Barnes, Thomas Price, and Spencer Yoder. "Automating Personalized Feedback to Improve Students' Persistence in Computing". In: *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education V. 2*. SIGCSE 2022. Providence, RI, USA: Association for Computing Machinery, 2022, p. 1197. ISBN: 9781450390712. DOI: 10.1145/3478432.3499144.

[41] Sarah Heckman, Lina Battestilli, Anna Howard, Kristy Boyer Maya Israel, Kristin Stephens-Martinez, Brandon Fain, Ketan Mayer-Patel, David Gotz, and Aaron Smith. "Peer Teaching Summit 2022". In: *Proceedings of the 53nd ACM Technical Symposium on Computer Science Education*. SIGCSE TS '22. Affiliated Event. ACM, 2022.

[42] Amy Isvik, Veronica Cateté, Lina Battestilli, Tiffany Barnes, Jamie Payton, and Chelsea Zackey. "STARS Ignite: A Program for Supporting Professors in Organizing Student Cohorts for Conferences". In: *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education V. 2*. SIGCSE 2022. Workshop. Providence, RI, USA: Association for Computing Machinery, 2022, p. 1200. ISBN: 9781450390712. DOI: 10.1145/3478432.3499159.

[43] Kevin Lin, Lina Battestilli, and Michael Ball. "Strategies for Authentic Assessments of Mastery in CS Courses". In: *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education*. SIGCSE '21. BoF. Virtual Event, USA: Association for Computing Machinery, 2021, p. 1361. ISBN: 9781450380621. DOI: 10.1145/3408877.3439504.

[44] Tiffany Barnes, Jamie Payton, Lina Battestilli, and Marguerite Doman. "STARS Computing Corps IGNITE Program". In: *Proceedings of the RESPECT Conference 2019 (co-located SIGCSE'19)*. Workshop. 2019.

[45] Ursula Wolz, Lina Battestilli, Bruce Maxwell, Susan Rodger, and Michelle Trim. "Best Practices in Academia to Remedy Gender Bias in Tech". In: SIGCSE '18. Panel. Baltimore, Maryland, USA: ACM, 2018, pp. 672–673. DOI: 10.1145/3159450.3159618.

Magazine Articles, (Total = 2)

[46] T. Battestilli and H. Perros. "Optical burst switching for the next generation Internet". In: *IEEE Potentials* 23.5 (2005), pp. 40–43. DOI: 10.1109/MP.2005.1368915.

[47] T. Battestilli and H. Perros. "An introduction to optical burst switching". In: *IEEE Communications Magazine* 41.8 (2003), S10–S15. DOI: 10.1109/MCOM.2003.1222715.

Technical Reports, and Memos, (Total = 5)

[48] S. Fisk, K. T. Stolee, and L. Battestilli. *A Lightweight Intervention to Decrease Gender Bias in Student Evaluations of Teaching (Full Version)*. Technical Report TR-2019-9. North Carolina State University, Dec. 2019.

[49] L. Battestilli and A. Awasthi. *Two-stage Programming Projects: Individual Work Followed by Peer Collaboration*. Technical Report TR-2017-3. North Carolina State University, Aug. 2017.

[50] Lina Battestilli and et al. *Grid Optical Burst Switched Networks (GOBS)*. Technical Memo. Global Grid Forum, www.ggf.com, GHPN Group, July 2006.

[51] T. Battestilli and H. Perros. *Optical Burst Switching: A Survey*. Technical Report TR-2002-10. North Carolina State University, July 2002.

[52] T. Dimitrova(maiden name). *Protecting Private Networks From Internet Threats*. Undergraduate Thesis. Kettering University, 1999.

GRANTS

Funded Research	**Amount Awarded**
Funding while at NC State	$777,962
Funding prior to NC State	$350,000
Educational Grants	$49,633
Total:	**$1,177,595**

Recent External Grants

- *Collaborative Research: Characterizing and empowering student success when traversing the academic help landscape*
  PI: Sarah Heckman, Co-PI Lina Battestilli
  Funding Agency: National Science Foundation (NSF)
  Award: $374,120, Dates: 01/2024-4/2027

- *Computer Science Pathways: A Diagnostic Grant to Support Retention and Persistence*
  Sarah Heckman, Lina Battestilli, Veronica Catete
  Funding Agency: Northeastern University (Prime–Pivotal Ventures)
  Award: $59,917, Dates: 01/2022-1/2024

- *Early Research Scholars Program (ERSP)*
  V. Catete, B. Akram, S. Heckman, T. Barnes, L. Battestilli, B. Adams, C. Martens
  Funding Agency: Univ. of California - San Diego (Prime - (NSF))
  Award: $20,000, Dates: 09/2020-08/2023

- *Analysis of a Simple, Low-cost Intervention's Impact on Retention of Women in Computer Science*
  B. Akram, T. Barnes, T. Price, L. Battestilli
  Funding Agency: National Science Foundation (NSF) Award: $174,938, Dates: 07/2020-06/2023

- *CUE: Collaborative Research: Effective Peer Teaching Across Computing Pathways*
  Sarah Heckman, Lina Battestilli, Anna Howard Funding Agency: National Science Foundation (NSF)
  Award: $98,987, Dates: 1/2020-12/2021

Recent Educational Grants

- KEEN *Entrepreneurial Mindset into CSC113*
  Lina Battestilli
  Funding Agency: NC State College of Engineering Wolfpack Engineering Unleashed
  Award: $1000, Dates: 2024-2025

- *Course re-design of Introduction to Computing Python CSC111*
  PI:Shuyin Jiao, Collaborator: Lina Battestilli
  Funding Agency: NS State DELTA
  Award: $2000, Dates: 2021-2023

- *Course re-design of Introduction to Computing MATLAB CSC113*
  PI: Lina Battestilli
  Funding Agency: NS State DELTA
  Award: $18000, Dates: 2018-2020

INVITED PRESENTATIONS, PANELS, WORKSHOPS, ARTICLES

Invited Participation, Panels, Workshops, Articles , (Total = 16)

[53] Lina Battestilli, Phill Conrad, Diane Horton, and Mark S Sherriff. ***CRA Professional Development Pre-Symposium for Teaching-Track Faculty***. **Invited Panelist**. Pittsburgh, PA: Specialized professional development at SIGCSE TS 2025 for teaching-track faculty, Feb. 2025.

[54] Sarah Khan, Lina Battestilli, Elaine Bohorquez, and April Fogleman. ***Hybrid Flexible (HyFlex) Instruction: What, How, Why and When to Use?*** Invited Talk. UNC System Learning and Technology Symposium, Apr. 2023.

[55] Lina Battestilli. ***Tech for Good – Start with a Computer Science Degree***. Invited Talk. Girls Computer Science Club at the NC School of Science and Math, Apr. 2022.

[56] Lina Battestilli, Sarah Khan, and Elaine Boróquez. ***DELTA Faculty Fellows Inspire Colleagues Across Campus***. Article. NCSU DELTA, Apr. 2022. URL: https://delta.ncsu.edu/news/2022/04/01/delta-faculty-fellows-inspire-colleagues-across-campus/.

[57] Elaine Bohorquez, Cigdem Meral, Sarah S. Khan, Lina Battestilli, April Fogleman, and Melissa Schug. *Self Directed Learning Readiness in a Hyflex Classroom: Evidence from Four Classes*. Presentation. ITLC Lilly Asheville 2022, Aug. 2022.

[58] Sarah S. Khan, Lina Battestilli, and Elaine Bohorquez. *Hyflex Instructional Design - What Have We Learnt so Far?* Presentation. NCSU DELTA Summer Shorts in Instructional Technologies, Aug. 2022.

[59] Y. Shen, E. Dempster, K. Heyward, and L. Battestilli. *Roadmap to Success: Introducing the Moodle Roadmap Tool*. Presentation. NCSU DELTA Summer Shorts in Instructional Technologies, Aug. 2022.

[60] Lina Battestilli. ***Best Practices for Managing Online Office Hours***. Article. NCSU DELTA, Apr. 2021. URL: https://delta.ncsu.edu/news/2021/02/04/best-practices-for-managing-online-office-hours/.

[61] Lina Battestilli. ***Perspectives from a HyFlex Classroom***. Article. NCSU DELTA, Dec. 2021. URL: https://delta.ncsu.edu/news/2021/12/14/faculty-fellows-series-perspectives-from-a-hyflex-classroom-3/.

[62] Lina Battestilli and et al. ***RESOURC: REsearch Exposure in Socially Relevant Computing***. Invited Panelist. EECS department of Syracuse University and Google Research, Apr. 2021.

[63] Lina Battestilli, Susan Fisk, and Spencer Yoder. ***Unambiguous Grades Workshop***. Workshop Organizer. NCSU DELTA, Dec. 2021.

[64] Lina Battestilli and Anna Howard. ***Gradescope Workshop***. Workshop Organizer. NCSU DELTA, Apr. 2021.

[65] Lina Battestilli. ***2020 Fall Symposium: Technology and Bias***. Invited Panelist. NCSU Honors and Scholars Village, Sept. 2020.

[66] Lina Battestilli and et al. ***Decoding CS Grad School - Understanding the Who, What, How, Why of Continuing Your CS Studies***. Invited Panelist. NCSU CSC Graduate Career Services, Dec. 2020.

[67] Lina Battestilli. *Exam Wrappers and Grades with Context*. Workshop. NCSU's DELTA Summer Shorts in Instructional Technologies, 2018.

[68] Lina Battestilli. *SHE++ Documentary Screening and Discussion*. Panel Moderator. NCSU Women In Computer Science, 2014.

[69] Lina Battestilli, Larry Silverberg, and Jeffrey Eischen. *CAD Apps: Computer aided design applications for the MAE curriculum*. Workshop. Annual MathWorks Curriculum Conference, 2014.

PATENTS

- **Lina Battestilli**, Gary Shippy, Terry Nelms and Steven W. Hunter, "Load-balancing via Modulus Distribution and TCP Redirection due to Server Overload", US8243598B2, 2010

- **Lina Battestilli**, Gary Shippy, Terry Nelms and Steven W. Hunter, "Steering Fragmented IP Packets Using 5-Tuple Based Rules", US20120224581A1, 2010

SERVICE

Service to the Students & the University

- Member of NCSU's COE Inaugural **College Teaching Committee**, 2024-present
- Faculty Advisor, Women In Comp. Science Student Group, ACM-W chapter, 2013-2025
- Member, NC State's Dean of College of Engineering Nomination Committee - 2023
- Leader, Foundations Focus Group - course scheduling of introductory courses, 2022-present
- Promotion Committee Chair for Shuyin Jiao (2024) and Jamie Jennings (2022)
- Instructor, College of Engineering CSC Summer Programs for High School Students, 2013-2022
- Invited Member, NC State's Post COVID Instruction and Student Support Task Force - 2021
- Helper with ABET Discussions and Meetings (csc492) - 2022
- Member, Diversity in Admissions and Matriculation (DAM) Committee - 2020
- Member, Equal Opportunity Officer Task Force - 2020
- Member, Teaching Assistant Professor & Lecturer Hiring Committee, 2019
- Member, Strategic Planning Committee, 2016-2019
- Member, Department Head Search Committee, 2017-2018
- Member, Computer Steering Committee (NCSU ETF Funds), 2016-2020

Service to the Profession

- **Senior/Junior Program Chair, (SIGCSE TS 2024, SIGCSE TS 2023)**
- Co-chair of Posters, (SIGCSE TS 2021, SIGCSE TS 2022)
- Member of the Academic Track Committee for the Grace Hopper Celebration (GHC'2019 - 2022)
- Co-chair of Lightning Talks & Demos Tracks (SIGCSE TS 2019, SIGCSE TS 2020)
- Co-chair of BoFs(SIGCSE TS 2018)
- Member of the NC Local Committee of the NCWIT Aspiration in Computing Awards(2020)
- Member of Local Planning Committee, ASEE SE Section Annual Conf. 2019 (held at NCSU)
- PhD Forum Co-Chair, International Conference on Network Protocols (ICNP 2014)
- Reviewer: ACM SIGCSE TS, ICER, ITiCSE, TOCE, ASEE, Journal of CS Ed, Tapia, Grace Hopper Celebration, etc.

Professional Associations

- Association for Computing Machinery (ACM), 2013-present
- Special Interest Group Computer Science Education (SIGCSE), 2013-present
- American Society of Engineering Education (ASEE), 2019-present
- Institute of Electrical and Electronic Engineers (IEEE), 2001-2005
- National Center for Women and Information Technology (NCWIT), 2014 - present

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