Theresa Migler

Department of Computer Science
California Polytechnic State University
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EDUCATION

Ph.D., Computer Science, June 2014
Oregon State University, Corvallis
Major: Computer Science
Minor: Mathematics
Advisor: Glencora Borradaile

MS, Computer Science, June 2013
Oregon State University, Corvallis
Major: Computer Science

MS, Mathematics, December 2006
California Polytechnic University, San Luis Obispo
Major: Mathematics

BS, Mathematics, June 2004
California Polytechnic University, San Luis Obispo
Major: Mathematics
Minor: Philosophy

EXPERIENCE

Assistant Professor   Fall 2018 - Present
California Polytechnic State University, Computer Science Department
- CSC 348 - Discrete Structures
- CSC 349 - Design and Analysis of Algorithms
- CSC 549 - Advanced Algorithm Design and Analysis
- CSC 570 - Advanced Algorithmic Graph Theory

Visiting Professor   Fall 2018 - Winter 2019
Munich University of Applied Science, Computer Science and Mathematics
- Algorithms and Datastructures I
- Graduate Graph Theory

Lecturer   Fall 2015 - Spring 2018
California Polytechnic State University, Computer Science Department
- CPE 101, 103 - Fundamentals of Computer Science
- CSC 348 - Discrete Structures
- CSC 349 - Design and Analysis of Algorithms
- CSC 448 - Bioinformatics Algorithms

Lecturer   Fall 2014 - Spring 2015
University of California Santa Cruz, Jack Baskin School of Engineering
- CMPS 5P - Introduction to Python
- CMPS 10 -Introduction to Computer Science
- CMPS 17 - Social Networks

Lecturer	Summer 2012, 2014

Oregon State University, EECS Department
- CS 325 - Undergraduate Algorithms

Teaching Assistant   Fall 2010 - Spring 2014

Oregon State University, EECS Department
- CS 325 - Undergraduate Algorithms
- CS 381 - Undergraduate Programming Languages
- CS 515 - Graduate Algorithms

Teaching Assistant   Fall 2008 - Spring 2010

Oregon State University, Math Department
- MATH 111, 112, 251 - Calculus and Pre-Calculus

Lecturer   Fall 2006 - Spring 2008

California Polytechnic State University, Math Department
- Math 116, 117, 118, 119, 141, 142, 143 - Calculus and Pre-Calculus

Lecturer   Fall 2006 - Spring 2008

Cuesta Community College, Math Department
- Math 23, 27, 32 - College Algebra and Pre-Calculus

Teaching Associate   Fall 2004 - Spring 2006

California Polytechnic State University, Math Department
- Math 116, 117, 118, 119 - Pre-Calculus

PUBLICATIONS   Kirsten Mork, Theresa Migler, Zoë Wood
- Introducing Computing to a Cohort of Incarcerated Youth *SIGCSE '20: Proceedings of the 49th ACM Technical Symposium on Computer Science Education*, 2020

Conor Carroll, Nupur Garg, Theresa Migler, Barbara Walker, and Zoë Wood
- Mapping and Visualization of Publication Networks of Public University Faculty in Computer Science and Electrical Engineering *Proceedings of 35th International Confer- ence on Computers and Their Applications*

Logan McNichols, Gabriel Medina-Kim, Viet Lien Nguyen, Christian Rapp, Theresa Migler
- Gender's Influence on Academic Collaboration in a University-Wide Network *International Conference on Complex Networks and Their Applications*, 2019

Christopher Siu, Theresa Migler
- Vaccination Strategies on a Robust Contact Network *International Conference on Complex Networks and Their Applications*, 2019

Sean Gonzales, Theresa Migler
- The Densest k Subgraph Problem in b-Outerplanar Graphs *International Conference on Complex Networks and Their Applications*, 2019

Glencora Borradaile, Theresa Migler, and Gordon Wilfong.
- Density Decompositions of Networks *Journal of Graph Algorithms and Applications*, 2019

Iris Kohler, Theresa Migler, Foaad Khosmood.

- Composition of Basic Heuristics for the Game 2048 *FDG '19 Proceedings of the 14th International Conference on the Foundations of Digital Games* 2019

Theresa Migler, Glencora Borradaile, and Gordon Wilfong.
- Random Network Models Based on Density *Complex Networks* 2018

Theresa Migler.
- Lower Bounds for Testing Digraph Connectivity with One-Pass Streaming Algorithms. *IEEE Letters of the Computer Society* 2018

Theresa Migler, Lizabeth Schlemer.
- Engagement in Practice: Teaching Introductory Computer Programming at County Jails *ASEE* 2018

Theresa Migler, Glencora Borradaile, and Gordon Wilfong.
- Density Decompositions of Networks *CompleNet* 2018

Glencora Borradaile, Jennifer Iglesias, Theresa Migler, Antonio Ochoa, Gordon Wilfong, and Lisa Zhang.
- Egalitarian Graph Orientations. *Journal of Graph Algorithms and Applications*, 2017

Theresa Migler, Kent Morrison, Mitchell Ogle.
- How Much does a Matrix of Rank k Weigh? *Mathematics Magazine* 2006

GRANTS

"Bioinformatics Cross-Disciplinary Studies Minor"
Co-PI (Edward T. Himelblau, PI)
Center for the Advancement of Women in Technology $400,000$

STUDENT SUPERVISION

Current MS Students
- Iris Kohler
- Lauren Nakamichi

Current Senior Project and Independent Study Students
- Andrew Keshishian
- Jasmine Patel
- Sreelakshmi Kariyadan
- Nicole Hill
- Nicholas Balestrino
- Nicole Griffith
- Evan Shui
- Selynna Sun
- Ryan Zesch
- Viet Nguyen
- Joshua Boe
- Ryan Solarzano

MS Students Defended
- Christopher Siu *Simulating Epidemics and Interventions on High Resolution Social Networks* Spring 2019
- Michael Cantrell *Observations of the Copenhagen Networks Study* Spring 2019
- Siddhant Kahal *Bird Abundance at Bird Feeders in Response to Temperature, Wind Speed, and Precipitation during the Winter Season* Spring 2018

SURP 2019 Students
- Logan McNichols
- Gabriel Medina-Kim
- Viet Nguyen
- Christian Rapp

Past Senior Projects and Independent Studies
- Alexander James Bailey
- Samuel Chase
- Sean Gonzales
- David James
- Sharon Kuang
- Mitchell Overfield
- Jonathan Pautz
- Dmitriy Timokhin
- Collin Wong
- Samuel Chase
- Daniel Yao
- Timothy James Jyung
- Lohit Vankineni

Students Involved in Jail Project
- Cassie Hamilton
- Caleb Kim
- Yusuf Bahadur
- Terry Wambolt
- Larry Hu
- Chris Moranda
- Abby Schmiedt
- Hayley Cushing

SERVICE   *Creator of Computer Program at local jails*   Summer 2015 - Present

- Proposed a new program for the Men's and Women's jails, and the Men's and Women's honor farms.
- Created materials for an Introduction to Programming with Python course - a course similar to the first 4 weeks of CPE101.
- Taught this course four times.
- Involved 10 Cal Poly students in creating materials and assisting in teaching at the jail.

Indian Student Association Faculty Advisor   Fall 2016-2017

Wikipedia author/editor   2011-Present

Maryknoll lay volunteer   Summer 2012

- Volunteer math teacher to Mon refugees at Wat Prok in Bangkok, Thailand.
- Collaboratively developed and taught an introductory programming course using Python.

Get on the Bus- bus coordinator 2007-2008

AWARDS AND HONORS SWE "Most Supportive Professor" Nominee Fall 2015

M. Lehman Mathematics Educator Scholarship Recipient 2006

National Science Foundation Scholarship Recipient 2005-2006

College of Science and Mathematics Senior Recognition Award Contributions to the Objectives and Public Image of the University 2004