Da-Inn Erika Lee

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Department of Biostatistics and Medical Informatics
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Education

2023, Expected	Ph.D. in Biomedical Data Science, University of Wisconsin - Madison
2017	M.Sc. in Computer Sciences, University of Wisconsin - Madison
2011	B.Sc. in Cellular Molecular Biology, University of Michigan – Ann Arbor

Research & Professional Experience

2018 – Current	Research Assistant under supervision of Sushmita Roy University of Wisconsin, Wisconsin Institute for Discovery, Madison WI
2014 – 2018	Senior Analytics Consultant University of Wisconsin Hospital & Clinics, Madison WI
2013 – 2014	IT Support and Project Assistant University of Wisconsin Graduate School, Madison WI
2011 – 2013	Software Tester & Quality Assurance Epic, Verona WI
2007 – 2011	Research & Laboratory Assistant under supervision of John J. LiPuma University of Michigan Health System, Ann Arbor MI

Talks

2019 Lee, D. & Roy, S. (2019, July). *Discovering structural units of chromosomal organization matrix factorization and graph regularization*. Talk at the meeting of Intelligent Systems for Molecular Biology/European Conference on Computational Biology (ISMB/EECB), Basel, Switzerland.

2019 Lee, D. & Roy, S. (2019, May). *Discovering structural units of chromosomal organization matrix factorization and graph regularization*. Talk at the meeting of Great Lakes Bioinformatics (GLBIO), Madison, WI.

2018 Lee, D. & Roy, S. (2018, July). *A graph-regularized non-negative matrix factorization method to discover organizational units of chromosomes*. Talk at the meeting of Intelligent Systems for Molecular Biology (ISMB), Chicago, IL.

2018 Lee, D. & Kofoot, J. (2018, April). *It takes a village to raise a dashboard: how a distributed stakeholder model empowers self-service analytics*. Invited talk at the meeting of Qonnections, Orlando, FL.

Teaching & Outreach

2019 Guest lecture in Special Topics in Computational Network Biology, University of Wisconsin – Madison.

- Title: *Integrating single cell gene expression datasets*
- Audience: graduate students and undergraduate upperclassmen from diverse fields (computer sciences, statistics, bioinformatics, etc.)
- Hands-on demonstration and coding exercises for dimension reduction and graph construction methods used to integrate multiple single cell gene expression datasets, motivated by application to stem cell programming.
- Materials: github.com/Roy-lab/compnetbio-singlecell-integration

2019 Scratch coding club leader at Falk Elementary School, Madison, WI.

- Co-leaders: Fnu Srujana, Chung-an Huang
- Club members: 4th and 5th grade students from diverse socioeconomic backgrounds in Madison Metropolitan School District
- Weekly after-school club to spark interest in computer science in elementary school students. Collaborative planning with co-leaders of activities and projects. Hands-on demo of a programming concept in Scratch followed by one-on-one interaction and help.
- Example Scratch projects: scratch.mit.edu/studios/25419393/

Tutorials

2019 Lee, D., Baur, B., Liu, X., & Ward, H. (2019, May). *Higher Understanding with Lower Dimensions: Tutorial on Dimension Reduction Methods on Biomedical Data*. Tutorial at the meeting of Great Lakes Bioinformatics (GLBIO), Madison, WI. [dimension-reduction.github.io]

2019 Lee, D. & Liu, L. (2019, April). *WACM Explains: Machine Learning*. Tutorial for the Women in Association for Computing Machinery (WACM), Madison, WI. [github.com/dyneofdata/wacm-ml-workshop]

Mentoring

2019 Mentor for undergraduate research project

- Mentee: Bochao Li
- Project title: Applying GRiNCH to Hi-C data from multiple developmental windows in rat model of breast cancer
- Defined project scope, weekly milestones and goals. Weekly review and feedback of progress and results. Bochao will present at the Undergraduate Research Symposium.

2016 Mentor for undergraduate students in Women in Association for Computing Machinery (WACM)

- Mentees: undergraduate students in Computer Sciences at UW-Madison
- Weekly office hours for career path discussion and review of resumes and/or graduate school applications. Weekly newsletter with academic and career-related resources.

Poster Presentations

2018 Lee, D. & Roy, S. (2018, December). *GRINCH: Discovering structural units of chromosomes with graph-regularized matrix factorization*. Poster presented at the meeting of Research in Computational Molecular Biology (RECOMB)/ Regulatory and Systems Genomics with DREAM Challenges (RSGDREAM), New York, NY.

2018 Lee, D., Becker, A.M., Stephenson, L.L., & Turner, C.R. (2018, January). *Self-service reporting for quantitative provider practice evaluation*. Poster presented at the meeting of American Society of Anesthesiologists (ASA) Practice Management, New Orleans, LA.

2018 Lee, D. & Turner, C.R. (2018, January). *Operating Room (OR) Key Performance Indicator (KPI) self-service reporting*. Poster presented at the meeting of American Society of Anesthesiologists (ASA) Practice Management, New Orleans, LA.

Awards & Honors

2019	Honorable Mention for Best Talk at Great Lakes Bioinformatics (GLBIO)
2019, 2018	Student Research Grants Competition Travel Award
2009	Hopwood Underclassmen Fiction Award
2009	James B. Angell Scholar
2008	William J. Branstorm Freshman Prize
2007 – 2010	University Honors

Activities & Affiliations

2019	Reviewer for RECOMB 2020
2019	Reviewer for NeurIPS MLCB 2019
2019	Reviewer for RSGDREAM 2019
2019	Reviewer for ACM-BCB 2019
2019	Reviewer for ISMB/EECB 2019
2018 – Current	Member of International Society for Computational Biology (ISCB)
2017	Reviewer for RSGDREAM 2017
2017	Reviewer for NeurIPS MLCB 2017
2016 – 2017	Member of WACM, UW-Madison's student chapter for ACM-W

Technical Skills

Database & systems	SQL (Oracle, Microsoft, Teradata), Hadoop, Spark, Linux
Programming languages	Python, C++, Java, R, MATLAB, Julia
Data visualization	QlikView/Qlik Sense, Tableau