

Ana Stanescu

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PROFESSIONAL APPOINTMENTS

University of West Georgia, Department of Computing and Mathematics, Carrollton, GA

- **Associate Professor** of Computer Science 2022 – now
- **Assistant Professor** of Computer Science 2017 – 2022

Icahn Institute of Genomics and Multiscale Biology, Icahn School of Medicine at Mount Sinai Department of Genetics and Genomic Sciences, New York, NY

- **Postdoctoral Research Fellow** in Machine Learning and Computational Biology 2015 – 2017

EDUCATION

Ph.D., Computer Science

- Kansas State University, Computing and Information Sciences Department, Manhattan, KS 2015
Dissertation: “Semi-supervised Learning for Biological Sequence Classification”

M.S., Computer Science – Secure Software Systems

- James Madison University, Computer Science Department, Harrisonburg, VA 2008

B.S., Informatics

- Romanian American University, Faculty of Managerial Informatics, Bucharest, Romania 2006

GRANTS

High-Potential Individuals Global Training Program - J.C. Seong (PI), **Ana Stanescu (co-PI)** 2019 – 2023

- Subaward, Funding Agency: Ministry of Science & Information and Communication Technology Planning & Evaluation, South Korea (4 yearly rounds)

AWARDS

Young Investigator Award

- National Institutes of Health - Big Data to Knowledge (NIH/BD2K) 2018
26th Conference on Intelligent Systems for Molecular Biology (ISMB) Chicago, IL

PUBLICATIONS

Refereed Journal Articles

- Mautusi Mitra and **Ana Stanescu – Complete Genome Sequence of *Acidovorax temperans* strain LMJ from a contaminated *Chlamydomonas reinhardtii* Tris-Acetate-Phosphate medium culture plate.** 2024
In: American Society for Microbiology Journals *Microbiology Resource Announcements* (2024) [[link](#)]
- Solveig K. Sieberts, Henryk Borzymowski, Yuanfang Guan, (12 authors), **Ana Stanescu**, (3 authors), the BEAT-PD DREAM Challenge Consortium et al. – **Developing better digital health measures of Parkinson’s disease using free living data and a crowdsourced data analysis challenge.** 2023
In: *PLOS Digital Health* (2023) [[link](#)]
- Jeong Seong, Yunsik Kim, Hyewon Goh, Hyunmin Kim, and **Ana Stanescu – Measuring Traffic Congestion with Novel Metrics: A Case Study of Six U.S. Metropolitan Areas** 2023
In: International Society for Photogrammetry and Remote Sensing - *International Journal of Geo-Information: Vol. 12, Issue 3, Article 130 (ISPRS IJGI 2023)* [[link](#)]
- Jeong Seong, Chul Sue Hwang, **Ana Stanescu**, Youngho Lee, Yubin Lee – **What Geographers Research: An Analysis of Geography Topics, Clusters, and Trends Using a Keyword Network Analysis Approach and the 2000-2019 AAG Conference Presentations** 2022
In: *Int’l Journal of Geospatial and Environmental Research: Vol. 9, No. 1, Article 1. (IJGER 2022)*

- **Ana Stanescu, Jeong Chang Seong, Yubin Lee, and Chul Sue Hwang – A Picture of Geography Revealed by a Keyword Network Analysis of the 2020 AAG Conference.** 2022
In: *Journal of the Korean Geographical Society, Vol. 56, No. 3, pages 177-187. (JKGS 2022)*
- **Sanghoon Ji, Jeong Seong, Ana Stanescu, Chul Sue Hwang, Yubin Lee – Construction of spatio-temporal data and analysis of congestion patterns using real-time traffic information from Google - Case of Montgomery County, Maryland, USA** 2021
In: *Journal of the Korean Geographical Society, Vol. 56, No. 3, pages 265 - 276*
- **Youngho Lee, Yubin Lee, Jeong Seong, Ana Stanescu, Chul Sue Hwang – A Comparison of Network Clustering Algorithms in Keyword Network Analysis: A Case Study with Geography Conference Presentations.** 2020
In: *International Journal of Geospatial and Environmental Research, Vol. 7, No. 1, Article 1 (IJGER2020)*
- **Yubin Lee, Youngho Lee, Jeong Seong, Ana Stanescu, Taegun Hwang, Chul Sue Hwang – Analysis of GIS Research Trends in US with AAG Conference Presentations from 2000-2019.** 2020
In: *The Geographical Journal of Korea, Vol. 53, No. 4, pp. 495-508*
- **Fourati S, Talla A, Mahmoudian M, Burkhart JG, Klen R, (10 authors), Ana Stanescu, Vogel R, The Respiratory Viral DREAM Challenge Consortium, Pandey G, (6 authors), Mangravite LM, Sieberts SK. – A crowdsourced analysis to identify ab initio molecular signatures predictive of susceptibility to viral infection.** 2018
In: *Nature Communications (9:4418)*
- **Ana Stanescu and Doina Caragea – An empirical study of self-training and data balancing techniques for splice site prediction** 2017
In: *International Journal of Bioinformatics Research and Applications, Vol. 13, No. 1, pp. 40-61*
- **Ana Stanescu, Karthik Tangirala, and Doina Caragea – Predicting Alternatively Spliced Exons Using Semi-Supervised Learning** 2016
In: *International Journal of Data Mining and Bioinformatics; Volume 14, No. 1, pp. 1-21*
- **Ana Stanescu and Doina Caragea – An empirical study of ensemble-based semi-supervised learning approaches for imbalanced splice site datasets.** 2015
In: *BMC Systems Biology; Volume 9, Supplement 5, S1*

Refereed Conference Proceedings Papers

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- **Steven Benzel, Ana Stanescu, and Ping Ye – SOTU: A Motivational Example for Data Science Courses** 2024
In: *The Annual ACM Southeast Conference (ACM-SE 2024) Marietta, GA*
 - **Sanghoon Ji, Jeong Seong, Yubin Lee, Ana Stanescu, Chul Sue Hwang – Rush Hour Crashes and Speeding Analysis with Traffic Big Data** 2020
In: *Sustainable Development & The Future, US-Korea Conference (UKC 2020)*
 - **Steven Benzel and Ana Stanescu – Histogram methods for unsupervised clustering.** 2020
In: *The Annual ACM Southeast Conference (ACM-SE 2020) Tampa, FL*
 - **Jonathan Corley, Ana Stanescu, Lewis Baumstark, Michael Orsega – Paper Or IDE? The Impact of Exam Format on Student Performance in a CS1 Course.** 2020
In: *The 51st ACM Technical Symposium on Computer Science Education Proceedings (ACM SIGCSE 2020), Portland, OR*
 - **Ana Stanescu and Gaurav Pandey – Learning parsimonious ensembles for unbalanced computational genomics problems.** 2017
In: *Pacific Symposium on Biocomputing (PSB 2017) Kohala Coast, Big Island, HI*
 - **Ana Stanescu, Karthik Tangirala, and Doina Caragea – Study of transductive learning and unsupervised feature construction methods for biological sequence classification.** 2016
In: *Proceedings of the International Symposium on Network Enabled Health Informatics, Biomedicine and Bioinformatics, part of the Proceedings of the 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2016) San Francisco, CA (Best Paper Award)*

- **Ana Stanescu** and Doina Caragea – **Transductive Learning Approaches for Predicting Cassette Exons.** 2015
In: *Proceedings of the Conference on Computational Intelligence in Bioinformatics and Computational Biology (IEEE CIBCB 2014)*, Niagara Falls, Canada [Regular Paper]
- **Ana Stanescu** and Doina Caragea – **Ensemble-based Semi-supervised Learning Approaches for Imbalanced Splice Site Datasets.** 2014
In: *Proceedings of the 2014 International Conference on Bioinformatics and Biomedicine (IEEE BIBM 2014)*, Belfast, United Kingdom
- **Ana Stanescu** and Doina Caragea – **Semi-supervised Self-training Approaches for Imbalanced Splice Site Datasets.** 2014
In: *Proceedings of the 6th International Conference on Bioinformatics and Computational Biology (BICoB 2014)*, Las Vegas, NV [Regular Paper]
- **Ana Stanescu**, Swapnil Nagar, Doina Caragea – **A Hybrid Recommender System: User Profiling from Keywords and Ratings.** 2013
In: *Proceedings of the 2013 IEEE/WIC/ACM International Conference on Web Intelligence (IEEE WI)*
- Srilaxmi Cheeti, **Ana Stanescu**, and Doina Caragea – **Cross-Domain Sentiment Classification Using an Adapted Naïve Bayes Approach and Features Derived from Syntax Trees.** 2013
In: *Proceeding of the 5th International Conference on Knowledge Discovery and Information Retrieval (KDIR 2013)*, Vilamoura, Portugal, [Acceptance rate 39%]
- **Ana Stanescu** and Doina Caragea – **Semi-supervised Learning of Alternatively Spliced Exons Using Expectation Maximization Type Approaches.** 2012
In: *Proceedings of the 3rd International Conference on Bioinformatics Models, Methods and Algorithms (BIOINFORMATICS2012)*, Vilamoura, Algarve, Portugal (SciTePress Digital Library)

Other Technical or Data Publications

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- Mautusi Mitra and [Ana Stanescu](#) – **Complete Genome Sequence of *Acidovorax temperans* strain LMJ from a contaminated *Chlamydomonas reinhardtii* culture plate.** 2023
In: DOE KBase (Department of Energy Systems Biology Knowledgebase) <https://kbase.us/n/161632/357/>
<https://commons.datacite.org/doi.org/10.25982/161632.357/2228677>
 - Mautusi Mitra and [Ana Stanescu](#) – ***Microbacterium sp. Clip185* chromosome, complete genome:** https://www.ncbi.nlm.nih.gov/nuccore/NZ_CP117996.1 (comprises 1 sequence)
In: NCBI (National Center for Biotechnology Information)
 - Mautusi Mitra and [Ana Stanescu](#) – ***Acidovorax temperans* strain LMJ chromosome, complete genome:** <https://www.ncbi.nlm.nih.gov/nuccore/CP117193.1> (comprises 3 sequences)
In: NCBI (National Center for Biotechnology Information)
 - Mautusi Mitra and [Ana Stanescu](#) – ***Sphingobium yanoikuyae* strain CC4533 chromosome, complete genome:** <https://www.ncbi.nlm.nih.gov/nuccore/CP115456.1> (comprises 5 sequences)
In: NCBI (National Center for Biotechnology Information)
 - Jeong Chang Seong, Sanghoon Ji, **Ana Stanescu**, and Chul Sue Hwang – **What will be presented at the 2021 AAG Meeting?** [\[article\]](#) 2021
In: *The American Association of Geographers Newsletter*, April 2, 2021
 - Jeong Chang Seong, Chul Sue Hwang, **Ana Stanescu**, Yubin Lee, and Youngho Lee – **What will be presented at the 2020 AAG Meeting?** [DOI: [10.14433/2017.0068](https://doi.org/10.14433/2017.0068)] 2020
In: *The American Association of Geographers Newsletter*, February 25, 2020
 - **Ana Stanescu**, Ramon A. Mata-Toledo, Pranshu Gupta – **Machine Learning** 2018
In: *McGraw-Hill Education* [Research Review in [AccessScience](#)]
 - Pranshu Gupta, **Ana Stanescu**, Ramon A. Mata-Toledo – **Internet of Things** 2018
In: *McGraw-Hill Education* [Research Review in [AccessScience](#)]
 - **Ana Stanescu** – **XML (Extensible Markup Language)** 2014
In: McGraw-Hill Education Encyclopedia/Yearbook of Science & Technology [Research Review in [AccessScience](#)]

Posters and Talks

- Jeong Seong, Yunkik Kim, Hyewon Goh, **Ana Stanescu – Development of a Traffic Congestion Index from Spatiotemporal Big Data for Urban Transportation Research and Applications** 2023
In: *AAG Annual Meeting* (AAG 2023)
- Yunkik Kim, Jeong Seong, Hyewon Goh, **Ana Stanescu – Modeling the Probabilities of Vehicle Crashes Using Machine Learning Methods with Congestion Amounts and Spatiotemporal Features at Montgomery County, Maryland** 2023
In: *AAG Annual Meeting* (AAG 2023)
- Hyewon Goh, Jeong Seong, Yunkik Kim, **Ana Stanescu – Does Traffic Congestion Increase Vehicle Crashes? A Regional Scale Study with a Novel Congestion Index and Machine Learning Methods** 2023
In: *AAG Annual Meeting* (AAG 2023)
- Mautusi Mitra, **Ana Stanescu**, Kevin Nguyen, Taylor Berry – **Whole genome sequencing of a novel bacterial strain isolated from a contaminated green-micro algal culture plate provides insight into its metabolome involved in heavy metal tolerance and xenobiotic biodegradation.** 2022
In: *International Seminar on Plants and Microbes: Health & Food* (12/28-29/2022) Calcutta, India
- Seorim Cho, Hyeokjin Hong, Hyunmin Kim, JC Seong, **Ana Stanescu**, Chul Sue Hwang – **Detecting Water Quality Changes by Landsat 8 OLI: A Case Study of Taedong River, North Korea** 2022
In: AAG Annual Meeting (AAG 2022)
- Hyeokjin Hong, Hyunmin Kim, Seorim Cho, JC Seong, **Ana Stanescu**, Chul Sue Hwang – **Traffic Big-data Analysis with Google Maps: Atlanta, Georgia, 2021** 2021
In: *76th Annual Meeting of the Southeastern Division of the American Association of Geographers* (SEDAAG 2021) Florence, AL
- Youngho Lee, Yubin Lee, **Ana Stanescu**, Jeong Seong – **Summarizing the 2019 AAG Conference Presentations Using Keyword Network Analysis.** 2019
In: *The 74th Annual Meeting of the Southeastern Division of the American Association of Geographers* (SEDAAG 2019) Wilmington, NC
- Adel Abunawass, **Ana Stanescu**, Alexandra Young, and Edwin Rudolph – **It Taketh a Village: Social Equity and Educational Access in Higher Ed.** 2019
In: *Conference on Meaningful Living and Learning in a Digital World*; February 4-6, 2019, Savannah, GA
- **Ana Stanescu** and Gaurav Pandey – **Integrating heterogeneous predictive models using Reinforcement Learning.** 2018
In: *26th Conference on Intelligent Systems for Molecular Biology (ISMB)- Machine Learning in Computational and Systems Biology (MLCSB) track*; July 6-11, 2018, Chicago, IL
[20-minute talk and poster presentation, acceptance rate 12%]
- **Ana Stanescu**, Mehmet Eren Ahsen, Robert Vogel, Gustavo Stolovitzky, Solveig K. Sieberts, and Gaurav Pandey – **Crowdsourced ensembles for the DREAM Respiratory Viral (RV) Challenge.** 2017
In: *RECOMB/ISCB Conference on Regulatory and Systems Genomics, with DREAM Challenges* (RECOMB/ISCB RSG 2017) November 19-22, 2017, New York, NY
- **Ana Stanescu** and Gaurav Pandey – **Learning parsimonious ensembles for biomedical prediction problems and DREAM challenges.** 2016
In: *RECOMB/ISCB Conference on Regulatory and Systems Genomics with DREAM Challenges and Cytoscape Workshop* (RECOMB/ISCB 2016)
- **Ana Stanescu**, Doina Caragea – **Semi-supervised learning of alternatively spliced exons.** 2011
In: *Proceedings of the 2011 Regional ACM/MINK-WIC Conference*, October 7-8, 2011, Kansas City, MO (**Best Poster Award**)
- **Ana Stanescu**, Doina Caragea, and Susan J. Brown – **Semi-supervised learning approaches for biological sequences.** 2011
In: *ACM/CRA-W Grad Cohort Workshop*, April 1-2, 2011, Boston, MA

PROFESSIONAL SERVICE

Grant Panel Reviewer

- NSF Computer and Information Science and Engineering (CISE) 2021

Journal Article Reviewer

- IEEE Transactions on Neural Networks and Learning Systems 2018 - present
- ACM Transactions on Knowledge Discovery from Data 2018
- IEEE Transactions on Cybernetics 2016, 2018, 2023
- IEEE Transactions on Computational Biology and Bioinformatics 2017
- IEEE Access 2017

Conference Article Sub-reviewer

- IEEE International Conference on Data Science and Advanced Analytics 2019 - present
- ISMB European Conf. on Computational Biology 2019
- IJCAI Bioinformatics and Artificial Intelligence Workshop 2016
- ACM Conference on Bioinformatics, Computational Biology, and Health Informatics 2015
- IEEE International Symposium on Bioinformatics Research and Applications 2012 - 2015
- IEEE International Conf. on Bioinformatics and Biomedicine 2013
- IEEE International Conf. on Computational Advances in Bio and Medical Sciences 2012

INVITED TALKS

- *The University System of Georgia* Women in Technology (WIT) Summit, Carrollton, GA 2018
- *Speaker Series* in the Computer Science Dept. at James Madison University, Harrisonburg, VA 2014

CERTIFICATES

NASA's Applied Remote Sensing Training Program

- Certification of completion - [Using Google Earth Engine for Land Monitoring Applications](#) 2021

United States Committee on National Security Systems

- Certification for Information Systems Security Professionals 2008

OTHER

Outstanding Undergraduate Teacher

- Based on the votes of the Computer Science undergraduate students (AY2023 – 2024) 2024
- Based on the votes of the Computer Science undergraduate students (AY2020 – 2021) 2021