Laura Greenstreet

I am a PhD student at Cornell working with Dr. Carla Gomes to develop AI and optimization methods with sustainability applications. Previously, I worked with Dr. Claire Kremen to scale an analysis of functional connectivity to the global level and with Dr. Geoffrey Schiebinger to develop optimization methods for single-cell genomics.

EDUCATION

2021 - Present	**Ph.D. Computer Science**, Cornell University
2020	**B.Sc. Honours Computer Science, Mathematics Minor**, University of British Columbia

PUBLICATIONS

2023	Mirka, R., **L. Greenstreet**, M. Grimson, C.P. Gomes. *A New Approach to Finding 2 x n Partially Spatially Balanced Latin Rectangles*, CP, 2023.
2022	Brennan, A., R. Naidoo, **L. Greenstreet**, Z. Mehrabi, N. Ramankutty, C. Kremen. *Functional Connectivity of the Worlds Protected Areas.* Science, 2022. https://doi.org/10.1126/science.abl8974
2022	**Greenstreet, L**., N.J.A. Harvey, V. Sanches Portella. *Efficient and Optimal Fixed-Time Regret with Two Experts.* ALT, 2022. https://doi.org/10.48550/arXiv.2203.07577
2021	Zhang, S., A. Afanassiev, **L. Greenstreet**, T. Matsumoto, G. Schiebinger. *Optimal transport analysis reveals trajectories in steady-state systems.* PLOS Computational Biology, 2021. https://doi.org/10.1371/journal.pcbi.1009466
2021	Li, H., J. Ezike, A. Afanassiev, **L. Greenstreet**, et al. *Single Cell Analysis Elucidates the Maturation of Human Stem and Progenitor Cell Function from Fetal through Adult Hematopoiesis.* Blood, 2021. https://doi.org/10.1182/blood-2021-151090
2021	Shahan R., C. Hsu, T.M. Nolan, B.J. Cole, I.W. Taylor, **L. Greenstreet**, et al. *A single cell Arabidopsis root atlas reveals developmental trajectories in wild type and cell identity mutants.* Developmental Cell, 2021. https://doi.org/10.1016/j.devcel.2022.01.008
2020	Massri, A.J., **L. Greenstreet**, A. Afanassiev, A. Berrio Escobar, G.M. Wray, G. Schiebinger, D.R. McClay. *Developmental Single-cell transcriptomics in the* Lytechinus variegatus *Sea Urchin Embryo.* Development, 2020. https://doi.org/10.1242/dev.198614

WORKSHOPS AND PRESENTATIONS

2023	**Greenstreet, L**, J. Fan, F. Siqueira Pacheco, Y. Bai, M. Eichemberger Ummus, et al. *Detecting Aquaculture with Deep Learning in a Low-Data Setting.* SigKDD 2023 Fragile Earth Workshop.
2020	**Greenstreet, L**, and E. Lai. *Developing a Data-Driven Electric Vehicle Strategy in Surrey, BC.* SigKDD 2020 Social Impact Session.

Awards

2022, 2023	**Graduate Teaching Award**, Department of Computer Science, Cornell University
2020	**Undergraduate Summer Research Award**, Natural Sciences and Engineering Research Council of Canada (NSERC)
2019	**Data Science for Social Good Fellowship**, UBC Data Science Institute
2018	**Stanley M Grant Scholarship in Mathematics**, UBC Department of Mathematics

Research Experience

05/2023 - Present	**Research Assistant**, Computational Sustainability Lab, Department of Computer Science, Cornell University
05/2022 - 08/2022	**Research Assistant**, Computational Sustainability Lab, Department of Computer Science, Cornell University
05/2020 - 08/2021	**Research Assistant**, Schiebinger Lab, Department of Mathematics, University of British Columbia
09/2019 - 09/2020	**Research Assistant**, WoRCS Lab, Institute for Resources, Environment, and Sustainability, University of British Columbia
05/2019 - 08/2019	**Fellow - Data Science for Social Good Program**, University of British Columbia Data Science Institute

Work Experience

09/2022 - 05/2023	**Head Teaching Assistant**, Cornell University, Ithaca, NY • CS 2700 - Excursions in Computational Sustainability • CS 4700/4701 - Foundations/Practicum in Artificial Intelligence
09/2021 - 05/2022	**Teaching Assistant**, Cornell University, Ithaca, NY • CS 4220 - Numerical Analysis: Linear and Nonlinear Problems • CS 3220 - Computational Mathematics for Computer Science
01/2019 - 05/2019	**Academic Assistant**, University of British Columbia Library, Vancouver, BC
07/2015 - 08/2017	**Information Technology Coordinator**, Tilth Alliance, Seattle, WA

Community Involvement

2023	**Organizer**, NeurIPS Computational Sustainability Workshop
2023	**Mentor**, BURE Undergraduate Research Program, Cornell
2023	**Volunteer TA**, AI for Science Program, Cornell
2020-2021	**Mentor**, Data Science for Social Good Program, UBC Data Science Institute
2019	**Tutor**, Emerging Indigenous Scholars Program, University of British Columbia