

## EDUCATION

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2021 - Present	<b>M.Sc. Computer Science,</b> Cornell University
2017 - 2020 2011 - 2012	<b>B.Sc. Honours Computer Science, Mathematics Minor,</b> University of British Columbia, GPA: 4.30/4.33

## RESEARCH EXPERIENCE

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05/2020 - 08/2021	<b>Research Assistant</b> , Department of Mathematics, University of British Columbia <ul style="list-style-type: none"><li>• Constructed developmental trajectories for biological systems in equilibrium using optimal transport on single-cell data</li><li>• Designed a manifold-learning approach for optics-free spatial transcriptomics</li></ul>
09/2019 - 09/2020	<b>Research Assistant</b> , Institute for Resources, Environment, and Sustainability, University of British Columbia, Vancouver, BC <ul style="list-style-type: none"><li>• Assisted with a global assessment of the functional connectivity of protected areas</li><li>• Created acoustic permeability signatures to aid in the study of vocal amphibians</li></ul>
09/2019 - 05/2020	<b>Honours Thesis</b> , Algorithms Lab, Department of Computer Science, University of British Columbia, Vancouver, BC <ul style="list-style-type: none"><li>• Developed a continuous approximation to the classic learning problem of prediction with expert advice for a small numbers of experts</li></ul>
05/2019 - 08/2019	<b>Fellow - Data Science for Social Good Program</b> , University of British Columbia Data Science Institute, Vancouver, BC <ul style="list-style-type: none"><li>• Integrated six datasets and developed the database for an app helping city planners develop electric vehicle infrastructure</li><li>• Created a model to identify and rank charging sites, developing an objective that incorporates both potential usage and even access to chargers</li></ul>

## PUBLICATIONS

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2021	Zhang, S., A. Afanassiev, <b>L. Greenstreet</b> , T. Matsumoto, G. Schiebinger. <i>Optimal transport analysis reveals trajectories in steady-state systems</i> . PLOS Computational Biology, 2021. <a href="https://doi.org/10.1371/journal.pcbi.1009466">https://doi.org/10.1371/journal.pcbi.1009466</a>
2021	Shahan R., C. Hsu, T.M. Nolan, B.J. Cole, I.W. Taylor, <b>L. Greenstreet</b> , et al. <i>A single cell Arabidopsis root atlas reveals developmental trajectories in wild type and cell identity mutants</i> . Developmental Cell, 2021. <a href="https://doi.org/10.1016/j.devcel.2022.01.008">https://doi.org/10.1016/j.devcel.2022.01.008</a>
2020	Massri, A.J., <b>L. Greenstreet</b> , A. Afanassiev, A. Berrio Escobar, G.M. Wray, G. Schiebinger, D.R. McClay. <i>Developmental Single-cell transcriptomics in the Lytechinus variegatus Sea Urchin Embryo</i> . Development, 2020. <a href="https://doi.org/10.1242/dev.198614">https://doi.org/10.1242/dev.198614</a>

## PRESENTATIONS

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- 2020 **Greenstreet, L.**, and E. Lai. *Developing a Data-Driven Electric Vehicle Strategy in Surrey, BC*. SigKDD 2020 Social Impact Session.
- 2020 **Greenstreet, L.**, and E. Lai. *Maximizing Utilization of Electric Vehicle Charging Infrastructure in Surrey, BC using a Data-Driven Model*. UBC Multidisciplinary Undergraduate Research Conference.

## PREPRINTS

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- 2022 **Greenstreet, L.**, A. Afanassiev, Y. Kijima, M. Heitz, S. Ichiguro, et al. *A DNA-based global positioning system—a theoretical framework for large-scale spatial genomics*. Preprint. <https://www.biorxiv.org/content/10.1101/2022.03.22.485380v1>
- 2021 Brennan, A., R. Naidoo, **L. Greenstreet**, Z. Mehrabi, N. Ramankutty, C. Kremen. *Functional Connectivity of the World's Protected Areas*. Preprint. <https://doi.org/10.1101/2021.08.16.456503>
- 2021 Hojun, L., J. Ezike, A. Afanassiev, **L. Greenstreet**, et al. *Hematopoiesis at single cell resolution spanning human development and maturation*. Preprint. <https://www.biorxiv.org/content/10.1101/2021.08.25.457678v1>

## AWARDS

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- 2020 **NSERC Undergraduate Summer Research Award**
- 2018 **Stanley M Grant Scholarship in Mathematics**
- 2011 **President's Entrance Scholarship**
- 2011 **Governor General's Academic Medal - Bronze**

## WORK EXPERIENCE

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- 09/2020 - Present **Teaching Assistant**, Cornell University, Ithaca, NY
- 01/2019 - 05/2019 **Academic Assistant**, University of British Columbia Library, Vancouver, BC
- 07/2015 - 08/2017 **Information Technology Coordinator**, Tilth Alliance, Seattle, WA

## VOLUNTEER EXPERIENCE

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- 2020-2021 **Mentor**, Data Science for Social Good Program, UBC Data Science Institute, Vancouver BC
- 2019 **Math Tutor**, Emerging Indigenous Scholars Program, University of British Columbia, Vancouver BC
- 2014-2015 **Board Member**, SEED, Univ. of Washington Sustainability in Housing, Seattle WA
- 2014-2015 **Volunteer**, University of Washington Student Farm, Seattle WA
- 2011-2012 **Member**, Common Energy, University of British Columbia, Vancouver BC