

## 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
2014 - 2015	<b>B.Sc. Undeclared,</b> University of Washington, GPA: 3.9/4.0

## 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>Cellular Trajectory Reconstruction in Equilibrium Systems:<ul style="list-style-type: none"><li>Extended an approach for reconstructing cellular trajectories from a time series of RNA-seq data to a snapshot of a steady-state systems using optimal transport.</li><li>Collaborated with biologists to apply the new approach to two real-world datasets, leading to biological insights.</li></ul></li><li>Spatial Transcriptomics:<ul style="list-style-type: none"><li>Designed simulations to help experimentalists identify limiting factors in a novel spatial transcriptomics method for reconstructing cell positions in RNA-seq data without imaging.</li></ul></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>Global Connectivity Modelling:<ul style="list-style-type: none"><li>Modeled the connectivity of protected area networks under several scenarios designed to meet conservation targets while minimizing caloric loss.</li><li>Ran continent-level analyses of connectivity, comparing the overlap of high connectivity-value areas to areas prioritized by existing conservation schemes.</li></ul></li><li>Ecoacoustics:<ul style="list-style-type: none"><li>Designed acoustic permeability signatures for forested and agricultural landscapes to study correlations between the acoustic environment and the presence vocal amphibian species.</li></ul></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 to a common spatial system and designed an SQL database to allow city planners to visually interact with the data.</li><li>Created a model to identify and rank charging sites, developing an objective that incorporates both potential usage and even access to chargers for residents across the city.</li></ul>

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## PUBLICATIONS & PRESENTATIONS

- 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 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>
- 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.

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## PREPRINTS

- 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>

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## AWARDS

- 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**

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## SKILLS

- Languages** Python, R, Matlab, Julia, SQL, Java
- Technologies** Linux, Git, GIS, Postgres, Latex, cluster computing

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## WORK EXPERIENCE

- 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

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## VOLUNTEER EXPERIENCE

- 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