BRANDEN OLSON

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EDUCATION

***Doctor of Philosophy*, Statistics** 2016 - Present
University of Washington, Seattle

***Master of Science*, Applied Mathematics** 2015 - 2016
University of Colorado, Boulder
Thesis: Stochastic weather generation with approximate Bayesian computation

***Bachelor of Science*, Applied Mathematics** 2011 - 2016
University of Colorado, Boulder
Summa cum laude (3.97 GPA)
Minors: Computer Science, Philosophy

PROFESSIONAL EXPERIENCE

Data Scientist Intern Summer 2016
Paysa, Inc.
Boulder, CO

Advanced Analytics Intern Summer 2015
Seagate Technology
Longmont, CO

Software Engineering Intern Summer 2013 - Fall 2014
Spectra Logic
Gunbarrel, CO

RESEARCH EXPERIENCE

Predoctoral Research Associate June 2017 - Present
Adviser: Frederick "Erick" Matsen IV
Computational Biology Program, Fred Hutchinson Cancer Research Center

Predoctoral Research Associate September 2016 - June 2017
Adviser: Peter Guttorp
Department of Statistics, University of Washington

Research Assistant August 2014 - May 2016
Adviser: Will Kleiber
Department of Applied Mathematics, University of Colorado

Undergraduate Research Assistant August 2013 - May 2014
Adviser: Juan Restrepo
Department of Applied Mathematics, University of Colorado

PUBLICATIONS

[3] **Olson, B.J.** and Matsen IV, F.A. (2018). "The Bayesian optimist's guide to adaptive immune receptor repertoire analysis." *Immunological Reviews*, **284**(1), 148–166.

[2] **Olson, B.** and Kleiber, W. (2017). "Approximate Bayesian computation methods for daily spatiotemporal precipitation occurrence simulation." *Water Resources Research*, **53**(4), 3352–3372.

[1] **Olson, B.** (2016). "Stochastic weather generation with approximate Bayesian computation." Master's thesis.

PRESENTATIONS

Combining mixture components for clustering by Baudry et al. (2010) June 2018
Research preliminary examination oral defense
University of Washington, Seattle, WA

Stochastic precipitation generation with approximate Bayesian computation April 2016
American Statistical Association Co/Wy Chapter Spring Meeting
National Center for Atmospheric Research, Boulder, CO

Simulation of local temperature and precipitation occurrence using approximate Bayesian computation February 2015
Front Range Applied Mathematics Student Conference
University of Colorado, Denver, CO

TEACHING EXPERIENCE

Teaching Assistant Spring 2016
APPM 1350: Calculus I for Engineers
University of Colorado, Boulder

Teaching Assistant Fall 2015
APPM 1350: Calculus I for Engineers
University of Colorado, Boulder

Learning Assistant Spring 2013
APPM 1360: Calculus II for Engineers
University of Colorado, Boulder

Learning Assistant Fall 2012
APPM 1350: Calculus I for Engineers
University of Colorado, Boulder

TECHNICAL STRENGTHS

Programming Languages: Heavy R experience. Moderate experience with Python, Mathematica, C/C++, Matlab, Ruby, Java, and Scala

Software/Tools: Linux, vim, git, LaTeX, tmux, bash, OpenGL, XML

Web Development: Ruby on Rails, HTML/CSS, Shiny, Javascript and JQuery

Databases: SQL

Development Process: Agile, Rally, Kanban

TRAINING

Summer Institute in Statistics and Modeling in Infectious Diseases — July 2018
University of Washington, Seattle, WA
Certifications: Infectious Diseases, Immunology and Within-Host Models; Evolutionary Dynamics and Molecular Epidemiology of Viruses; Pathogen Evolution, Selection, and Immunity

GRANTS AND FUNDING

NSF STAT ATM OCEAN 62-3132, $21,546 — Sept 2016 - June 2017

NST EXTREEMS DMS-1407340, $9,500 — Aug 2014 - May 2016

ACADEMIC AWARDS AND HONORS

Department Fellowship — Fall 2016
Department of Statistics, University of Washington

Summa cum laude — Spring 2016
University of Colorado
Achieved cumulative GPA of 3.9 or higher (3.97 GPA, class rank: 3/43)

Nominee for Outstanding Graduate for Research — Spring 2016
College of Engineering and Applied Science, University of Colorado

Dean's List — Fall 2011 - Spring 2015
College of Engineering and Applied Science, University of Colorado
Achieved semester GPA of 3.6 or higher

ACADEMIC SERVICE AND AFFILIATIONS

Neural Networks Working Group, Member — Summer 2018 - Present
Fred Hutchinson Cancer Research Center

Space-time Reading Group, Co-Director — Spring 2017
University of Washington

Space-Time Reading Group, Member — 2016 - 2017
University of Washington

Engineering Fellows, Member — Fall 2013 - Spring 2015
University of Colorado

First Generation Program, Member — Fall 2011 - Spring 2015
University of Colorado