Taylor Dunn

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EDUCATION

Master of Science (Physics), 4.2 GPA

September 2014 - August 2016

Dalhousie University, Halifax, NS

Thesis: Image Segmentation and Modelling of Host-Pathogen Dynamics of Salmonella

Bachelor of Science (Physics, Honours), 4.3 GPA

September 2009 - April 2014

University of Prince Edward Island, Charlottetown, PE

Thesis: Studying Polymer Translocation with Dissipative Particle Dynamics and Monte Carlo Simulations

SKILLS

Languages (proficient): R, Python, C, Matlab, LaTeX

Languages (basic): C#, C++, Java, Javascript

Software: Vim, Git, Microsoft Office Suite, Adobe Illustrator, Adobe Indesign

Operating systems: Linux, Windows, Mac OS

EXPERIENCE

Biostatistician May 2017 - Present

DGI Clinical

- Plan and conduct data analysis using appropriate statistical methods.
- Plan and conduct research on different analytic methodologies.
- Prepare and present reports of data analyses.
- Ensure data completeness, quality and confidentiality.
- Design and maintains research databases.
- Design analytic approaches consistent with objectives.

Teaching Assistant

September 2015 - December 2015

September 2014 - December 2014

Dalhousie University, Department of Physics and Atmospheric Science

- Course: Introduction to Numerical Programming.
- Aided undergraduate Physics students in exploring and modelling physical systems in Python, and interpreting the results.
- Ran weekly tutorial sessions and marked biweekly assignments.
- Gave lectures when the professor was absent.

Student Researcher

May 2011 - August 2014

University of Prince Edward Island, Department of Physics

- Worked in a computational biophysics lab under supervision of a senior faculty member.
- Developed simulation software of molecules and analyzed data.
- Presented data in various settings and formats (posters, presentations, papers, conferences).

Help Centre Tutor

October 2013 - April 2014 September 2011 - December 2011

University of Prince Edward Island

 Participated in weekly tutorial sessions where students would come for assistance in various subjects (Physics, calculus, statistics, etc.).

Laboratory/Teaching Assistant

January 2012 - April 2012 September 2010 - April 2011

University of Prince Edward Island, Department of Physics

- Marked tests taken by first year undergraduate science students.
- Assisted with student instruction, equipment setup and marking of undergraduate Physics labs.

PRESENTATIONS & PUBLICATIONS

- Dunn, T and Rutenberg, A (2016, January). *Modelling Host-Pathogen Dynamics of Salmonella*. Poster presented at The New Bacteriology Conference, The Royal Society, London, England.
- Dunn, T and Rutenberg, A (2015, April). *Modelling Growth in Host-Pathogen Dynamics*. Poster presented at the annual Chemical Biophysics Symposium, University of Toronto, Ontario.
- Polson, J and Dunn, T (2014, January). Evaluating the Applicability of the Fokker-Planck Equation in Polymer Translocation: A Brownian Dynamics Study. *Journal of Chemical Physics*, 140 (18), 184904.
- Dunn, T (2014, January). Studying polymer translocation with dissipative particle dynamics. Presentation at the annual Atlantic Undergraduate Research and Astronomy Conference, Dalhousie University, Nova Scotia.
- Dunn, T (2013, August). Studying polymer translocation dynamics with dissipative particle dynamics. Presentation at the annual UPEI Science Undergraduate Research Conference, University of Prince Edward Island, Prince Edward Island.
- Dunn, T (2013, February). Polymer translocation dynamics through a nanopore. Presentation at the annual Atlantic Undergraduate Research and Astronomy Conference, University of Moncton, New Brunswick.
- Dunn, T (2012, August). Polymer translocation dynamics through a nanopore. Presentation at the annual UPEI Science Undergraduate Research Conference, University of Prince Edward Island, Prince Edward Island.
- Dunn, T (2011, August). Conformational correlation times for a tethered polymer. Presentation at the annual UPEI Science Undergraduate Research Conference, University of Prince Edward Island, Prince Edward Island.

HONOURS & AWARDS

Nova Scotia Graduate Scholarship

Undergraduate Student Research Award (NSERC)

The Robert Haines Memorial Science Award of Merit

Undergraduate Student Research Award (NSERC)

ACEmat Award in Computational Modelling of Materials

City of Charlottetown International Ambassador Award

Undergraduate Student Research Award (NSERC)

Physics Department Prize in Modern Physics

Global Issues Excellence in Writing Competition (winner)

University of Prince Edward Island Full Tuition Scholarship

High School Chemistry Prize (BioVectra)

September 2014 - September 2016

May 2014 - August 2014

October 2013

May 2013 - August 2013

February 2013

July 2012

May 2012 - August 2012

September 2011

March 2010

September 2009

June 2009