Thorsteinn Hjortur Jonsson

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PERSONAL STATEMENT

The vast range of the possible applications of mathematics has been my drive throughout my academic career.

I am currently doing a MASc in Machine Learning at University of Guelph under the supervision of Prof. Graham Taylor with focus on Deep Temporal Models.

EDUCATION

University of Guelph *August 2016 - current*
MASc - Machine Learning.

University of Iceland *August 2012 - June 2016*
B.Sc. - Major in Mathematics with emphasis on both Physics and Computer Science.

Akureyri Junior College *August 2008 - June 2012*
Matriculation Examination, Mathematics (Physics I) Program.

RESEARCH EXPERIENCE

Research in Deep Learning *August 2016 - ∞*

I am currently involved in the Deep Vision Project which seeks to learn from human activity in videos. I am also involved in research on Neural Language Models for Icelandic.

Research in Computational Quantum Physics *Summer of 2014 - 2016*

Worked with Prof. Vidar Gudmundsson on determining the steady states of an open quantum system.

Formulated a novel set of techniques to obtain a solution of the Nakajima-Zwanzig equation in Liouville space. The implementation offered significant reduction in computation time.

PUBLICATIONS

Physics *2016*

Gudmundsson et al. Regimes of radiative and nonradiative transitions in transport through an electronic system in a photon cavity reaching a steady state. Annalen der Physik.

Jonsson et al. Efficient determination of the Markovian time-evolution towards a steady-state of a complex open quantum system. arXiv preprint arXiv:1610.03223.

Jonsson, Thorsteinn. The Mathematical Description of Steady-State Solutions for an Open Quantum System. `http://hdl.handle.net/1946/25101`.

Deep Learning *2017*

Soon!

TEACHING EXPERIENCE

In 2016 I was a sessional teacher in three courses. In the fall semester I taught Linear Algebra and Mathematical Structures in Computer Science and in spring I taught Fourier Analysis and Partial Differential Equations. In the summer of 2015 I also taught a preparatory class in mathematics for prospective sophomores.

EXCHANGE PROGRAM

Erasmus Exchange Student *August 2014 - June 2015*
University of Bordeaux

PROGRAMMING LANGUAGES

I currently use Python and TensorFlow for my research. Other languages I have worked with include Torch7, Fortran, C, Java and Visual Basic.

VOLUNTEER WORK

Mentor for Erasmus Exchange Students *August 2015 - May 2016*
University of Iceland

Financial Director & Board Member *May 2013 - May 2014*
Stigull Student Association

LANGUAGES

Icelandic	Native language.
English	Excellent. Lived and worked in Burlington, Ontario, Canada for the summers of 2011 and 2013. TOEFL iBT score is excellent - 112/120. 28 out of 30 in all sections.
French	Basic. Lived and studied in Bordeaux, France for the academic year 2014-2015. Able to understand written language, especially mathematical language, quite well. Can understand basic spoken French and have simple conversations.

REFERENCES

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