Louis de Thanhoffer de Volcsey, Ph.D.

Portfolio

Muse, *your personal museum guide* — repository

- Built a recommendation system to make museums more user-friendly and suggest a new advertising strategy.
- Implemented a deep learning model using transfer learning on an existing CNN to detect image similarity with 78% accuracy.
- Deployed a web app through Flask hosted on Heroku. — link

ToxPost, *how toxic is an online comment?* — repository

- Applied various NLP techniques (Tf-Idf, GloVe) on a corpus of Youtube comments to create a bespoke word embedding.
- Trained an LSTM that describes toxicity with 80% accuracy.

Experience

Fellow at Insight, Toronto, ON, CAN. 2019-present
Data Science stream

- Quickly acquired the technical skills necessary to build end-to-end ML pipelines, rom the exploration/analysis of data to the design/optimization of a model and the development of a polished front-end.

Postdoctoral Fellow at University of Toronto, ON, CAN. 2015-2018
Department of Computer and Mathematical Sciences

- Applied techniques from category theory in new ways and gained a deeper understanding of intricate geometric patterns.
- Modernized both the teaching methods and curriculum as head coordinator for 9 math courses (with an enrollment of up to 300^+ and support team of 10^+), yielding one of the highest approval ratings in the department.

Programme Associate at UC Berkeley, CA, US. 2013
Mathematical Sciences Research Institute

- Collaboration with international experts on current problems in the field of algebraic geometry resulted in 2 publications in tier one articles.

Doctoral Candidate at University of Hasselt, BE. 2009-2015
Faculty of Pure and Applied Mathematics

- Thesis in noncommutative geometry led to new developments in string theory.
- Invited as plenary speaker to institutes around the world including AIM (Stanford, U.S.), IHP (Paris, Fr.), RIMS (Kyoto, JAP.), MFO (Oberwolfach, GER.), and Maxwell (Edinburgh, U.K.).

Skills

- classification/regression/clustering, NLP, (Conv./Rec.)NNs, dimension reduction.
- Python, TensorFlow/Keras, Scikit-Learn, Pandas, html/css/js/php.
- Stochastic methods, (Bayesian) statistics, linear algebra, calculus, graph theory.
- English (fluent), French (native), Dutch (native).

Education

- **Ph.D.** in Mathematics, University of Hasselt, BE. 2015
- **M.Sc.** in Pure Mathematics, University of Antwerp, BE. 2009
- **B.Sc.** in Mathematics, University of Antwerp, BE. 2007
- **Certification** in Machine Learning Engineering, Udacity. 2017

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