

Yann N. Dauphin

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| CONTACT INFORMATION | <i>Mobile:</i> +1 (514) 445 6297 <i>E-mail:</i> dauphiya@iro.umontreal.ca <i>WWW:</i> ynd.github.com |
| OBJECTIVE | I am interested in the development and application of machine learning algorithms that can learn from vast amounts of unlabeled data. |
| RESEARCH INTERESTS | machine learning, unsupervised learning, deep learning, auto-encoders, boltzmann machines, natural language processing, computer vision, speech processing |
| EDUCATION | Université de Montréal , Montréal, Québec Canada Ph.D., Computer Science, August 2011 to present <ul style="list-style-type: none">• Advisor: Professor Yoshua Bengio• Area of Study: Machine Learning We are developing deep learning algorithms that can scale to problems with vast amounts of data or high-dimensional data with applications to computer vision, natural language processing and speech processing. M.S., Computer Science, August 2010 to August 2011 <ul style="list-style-type: none">• Advisor: Professor Yoshua Bengio• Area of Study: Machine Learning• GPA: 4.1/4.3• Transferred to Ph. D. École Polytechnique de Montréal , Montréal, Québec Canada B. Eng., Computer Engineering, August 2006 to June 2010 Gained an intimate understanding of modern computer architectures. |
| AWARDS | NIPS '11 Best Student Paper Award: Honorable Mention (0.1% of submissions) for <i>The Manifold Tangent Classifier</i> . Winner of Phase 2 of the Unsupervised and Transfer Learning Challenge . Pascal2 Best UTLC Paper Award for <i>Unsupervised and Transfer Learning Challenge: a Deep Learning approach</i> . |
| PUBLICATIONS | S. Rifai, Y. Bengio, Y. Dauphin, P. Vincent. A Generative Process for Sampling Contractive Auto-Encoders. In: <i>Proceedings of the 29th International Conference on Machine Learning (ICML 2012)</i> . S. Rifai, Y. Dauphin, P. Vincent, Y. Bengio, X. Muller. The Manifold Tangent Classifier. In: <i>Advances in Neural Information Processing Systems (NIPS 2011)</i> . Invited as plenary talk (1.4% of submissions). Y. Dauphin, X. Glorot, Y. Bengio. Large-Scale Learning of Embeddings with Reconstruction Sampling. In: <i>Proceedings of the 28th International Conference on Machine Learning (ICML 2011)</i> . S. Rifai, G. Mesnil, P. Vincent, X. Muller, Y. Bengio, Y. Dauphin, X. Glorot. Higher Order Contractive Auto-Encoder. In: <i>Proceedings of the European Conference on Machine Learning (ECML 2011)</i> . |

PROFESSIONAL
EXPERIENCE

G. Mesnil, Y. Dauphin, X. Glorot, S. Rifai, Y. Bengio, et al. Unsupervised and Transfer Learning Challenge: a Deep Learning approach. In: *Journal of Machine Learning Workshop and Conference Papers (JMLR W&CP 2011)*.

Google, New York, New York, US

R&D Intern for speech recognition

May 2012 to August 2012

- Implemented and developed new deep learning algorithms for automatic speech recognition that scale to billions of examples.

SteerAds, Montréal, Québec Canada

R&D Engineer for learning algorithms

January 2011 to present

- Implemented all learning algorithms for intelligent online ad placement.
- Deployed in production serving over 10,000 requests per second.
- Used datasets containing hundreds of millions of examples.

Ericsson, Montréal, Québec Canada

R&D Intern for developer tools

May 2009 to August 2009

- Part of a team to integrate the [Linux Trace Toolkit](#) into the [Eclipse](#) IDE.
- Designed an implemented part of the user interface.
- Designed an automatic test suite for the user interface.

Soltic, Montréal, Québec Canada

Developer and Founding Member

January 2009 to December 2009

- Development of a screen-based information diffusion system.
- Sold license to [Collège Regina Assumpta](#).

Lambda Tree Media, Montréal, Québec Canada

Co-Founder

May 2008 to January 2009

- We wanted to make a good dating site for people in their forties.
- Design and implementation of the website.

VerkkoStadi Technologies, Montréal, Québec Canada

Developer for handwriting recognition system

May 2007 to August 2007

- Designed and implemented an handwriting recognition system using convolutional networks.

TEACHING
EXPERIENCE

École Polytechnique de Montréal, Montréal, Québec Canada

Teaching Assistant

September 2007 to September 2009

- Lab Instructor for INF 1995: Computer Engineering Project I
 - Autumn 2007, Autumn 2009
 - Responsible for supervision and grading of 3 hour laboratory where first-year undergraduate students build and program a robot.
- Lab Instructor for INF 1600: Architecture of micro-computers
 - Autumn 2009
 - Responsible for writing, supervision and grading of 3 hour laboratory where first-year undergraduate students learn about the design of micro-processors and the assembly language.

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| | <ul style="list-style-type: none"> • Assistant Lab Instructor for INF 2990: Computer Engineering Project II <ul style="list-style-type: none"> • Autumn 2008 • Responsible for 3 hour laboratory where sophomore undergraduate students learn how to make a 3D game. |
| SERVICE | <p>Contributor to several open-source software projects, including:</p> <ul style="list-style-type: none"> • GNU CLisp, one of the top Lisp compilers • JGAP, a popular library for implementing Genetic Algorithms • SWTBot, a UI testing tool <p>Computer Science Games, 2010</p> <ul style="list-style-type: none"> • Vice-President in charge of competitions for this annual north-american computer science competition. • Budget of over 50 000\$ with over 300 participants. |
| HARDWARE AND SOFTWARE SKILLS | <p>Computer Programming:</p> <ul style="list-style-type: none"> • C, C++, Python, Java, Assembly (x86), Scheme, JavaScript, Lisp, GNU make, SQL and others <p>Analog and Digital Electronics:</p> <ul style="list-style-type: none"> • Implementation of digital circuits on FPGA. • Design and building of analog circuits (e.g., filters). • Computer-Aided Design Tools: Cadence OrCAD, SPICE, Xilinx Studio <p>Embedded and Real-time Systems:</p> <ul style="list-style-type: none"> • Programming micro-controllers (e.g., Atmel ATmega 16) • Programming for the embedded and real-time μ-C operating system. <p>Information/Internet Technology:</p> <ul style="list-style-type: none"> • Networking (UDP, TCP), Services (Apache, MySQL, Nginx) • Design and implementation of web sites <p>Operating Systems:</p> <ul style="list-style-type: none"> • Apple OS X, Linux, Microsoft Windows |
| REFERENCES AVAILABLE TO CONTACT | <p>Dr. Yoshua Bengio (e-mail: yoshua.bengio@umontreal.ca; phone: +1 (514) 343 6804)</p> <ul style="list-style-type: none"> • Professor, Département d'informatique et de recherche opérationnelle, Université de Montréal ◇ P.O. Box 6128, Centre-Ville Branch Montréal (QC), H3C 3J7, Canada ★ <i>Dr. Bengio is my graduate advisor.</i> <p>Dr. Pascal Vincent (e-mail: vincentp@umontreal.ca; phone: +1 (514) 343 7472)</p> <ul style="list-style-type: none"> • Professor, Département d'informatique et de recherche opérationnelle, Université de Montréal ◇ P.O. Box 6128, Centre-Ville Branch Montréal (QC), H3C 3J7, Canada |