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# **CURRICULUM VITAE**

# **Resumé:**

I am a <u>Ph.D. student</u> at University of Montreal under the joint supervision of <u>Yoshua Bengio</u> and <u>Aaron Courville</u>, and in collaboration with <u>Joelle Pineau</u> at McGill University. I investigate the integration of deep learning models with reinforcement learning methods for dialogue and question-answering systems. I graduated from University College of London in <u>M.Sc. Machine Learning with distinction</u>. I obtained my undergraduate degree from Copenhagen University in B.Sc. Mathematics, specializing in statistics, during which I completed an exchange programme at Hong Kong University. I have previously worked as a software developer consultant for the Copenhagen-based IT company DigiCorpus, which is particularly relevant to machine learning. My core competencies are in machine learning, statistical modeling, mathematics and computer programming. My aspiration is to continuously learn and apply my knowledge wherever it may be useful.

| Personal strengths:<br>Language fluency:   | Creative, intelligent, independent yet team-oriented<br><i>Fluent:</i> English, Danish and Romanian;<br><i>Learning:</i> French. |              |   |
|--|--|--------------|---|
| Nationality:<br>Civil status:<br>Children: | Danish.<br>Married.<br>None.   |              |   |
| Technical Competencies:                    |  | Expert:      | Python, Theano, Matlab<br>C++, C# (Microsoft .Net), |
|  |  | Experienced: | R, SAS, Java, Subversion<br>systems, MySQL          |

# Education

# 2014 - : Ph.D. Computer Science, University of Montreal

• Integrating deep learning with reinforcement learning for dialogue and question-answering systems. Supervised by <u>Yoshua Bengio</u> and <u>Aaron Courville</u>.

# 2013 - 2014: M.Sc. Machine Learning, University College of London

- Broad first-class degree covering all aspects of machine learning: supervised learning, unsupervised learning, reinforcement learning, natural language processing, information retrieval, computer vision and affective computing.
- Masters project on applying deep learning and reinforcement learning to play chess. Supervised by <u>David Barber</u> and <u>Peter Dayan</u>.

# 2009 - 2012: B.Sc. Mathematics, University Of Copenhagen

- Specialized in statistics and machine learning, with several courses in economics, measure theory and game theory.
- Exchange programme at University of Hong Kong.

#### 2005-2008: High School (HTX Koege, VUC Aftenskole Koege)

- Math-technology line with higher level political science.
- Supplementary 2 years of part-time French studies.
- Student board member.

# **Publications**

See <a href="http://iulianserban.com/?page\_id=11">http://iulianserban.com/?page\_id=11</a>.

# **Professional Experience**

#### 2012 - 2013: Programmer: DigiCorpus Aps

After finishing my bachelor degree, I was employed by DigiCorpus Aps as a software programmer. DigiCorpus Aps develops welfare technologies to facilitate physio-therapeutic rehabilitation using <u>computer vision technology</u>. My work centered around the development of the core system, methods and algorithms used, and also covered interface design and user testing.

# 2012: Programmer: Financys A/S

I was employed by Financys A/S as a part-time software programmer. My responsibilities centered around developing the life-cycle financial optimization engine. The goal of the engine was to find the optimal choice of loan and pension schemes for pension deposit clients as well as asset allocation. The engine was based on <u>mixed-integer linear programming model</u>s.

#### 2007 - : CEO, Programmer, Mathematician - Self-owned Business: Blue Analysis v/ Iulian Vlad Serban

While in high school, I launched my own company Blue Analysis. The company has been running since and is most notable for the product Acid Library, a mathematical library for parsing numerical expressions, which has been successfully sold to countries around the world. For further information, please see the website: <u>www.blueanalysis.com</u>.

# 2010 - 2011: Project Manager, Statistician - Statistical Poverty Models

A fellow student and I started a project with the goal of developing <u>statistical models</u> <u>with sociological applications</u> in Denmark. The project partnered with the Think Tank Cevea (<u>www.cevea.dk</u>), and resulted in a working paper published in The Luxemborg Income Study (<u>www.lisdatacenter.org</u>) and a number of shorter essays.