DG Wilson

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Born: April 17, 1991—Indiana, U.S.A.
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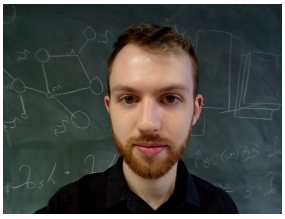

Education

2016-present **PhD in the REVA team, IRIT, University of Toulouse, France**
Studying artificial evolution and learning, advised by Sylvain Cussat-Blanc and Hervé Luga

2010-2014 **BSci in Electrical Engineering and Computer Science, MIT, Cambridge, USA**

Positions

2016-present **Lecturer at University of Toulouse**
Teaching Master's classes in Machine Learning and in Databases

2014-2016 **Software engineer at Infinidat LTD, Israel**
Full time position in infrastructure development for data storage systems

2013 **Researcher at IRIT, University of Toulouse, France**
Semester research project in wind farm layout optimization using genetic regulatory networks

2012-2013 **Researcher at MIT Research Lab for Electronics, Center for Excitonics**
One year research project on spin-coat manufacturing for exciton-based organic solar cells

2011-2014 **Researcher at MIT Computer Science and Artificial Intelligence Lab, ALFA group**
Optimization using distributed evolutionary algorithms and genetic regulatory networks and data classification with genetic algorithms, advised by Kalyan Veeramachaneni and Una-May O'Reilly

2011 **Engineer at Aviation and Missile Research, Development, and Engineering Center, AL, USA**
Internship in terahertz imaging, configuring optics equipment and developing MATLAB analysis tools

Teaching

2018 **Computational Intelligence, Lecturer, University of Toulouse**
Designed a new Master's course on Machine Learning as part of a Computational Intelligence unit

2016-2018 **Databases, Lecturer, University of Toulouse**

2014 **Introduction to Python, Teaching Assistant, MIT**

2010 **Introduction to Computer Science, Teaching Assistant, MIT**

Advising

2018 **Guillaume Boehm**
Undergraduate internship on Virtual Creature Evolution, co-advised by Sylvain Cussat-Blanc

2018 **Rayhane Belaroussi, Kim Phuong Pham, Sarune Samoskaite**
Master's project on Machine Learning on the Kaggle platform

2017 **Paul Carfantan**
Undergraduate thesis on Image Generation with Deep Neural Networks, co-advised by Sylvain Cussat-Blanc

Skills

Languages:	Python, Julia, C++, Octave (MATLAB), R, Scala, Java, Scheme. English, French, Hebrew
Frameworks:	TensorFlow, Keras, Caffe, scikit-learn, Pandas, MXNet
Methods:	CGP, ANNs, GRNs, GAs, NEAT, CMA-ES, SVMs, SGD, Adam, GANs
Systems:	Linux (Arch), AWS, Slurm, OpenStack, LAMP, PostgreSQL, ZFS

Grants, Honors & Awards

2017 2nd place, SIGEVO Summer School Competition
2017 SIGEVO student representative, ACM Turing Award Celebration
2017 Winner, SIGAI Essay Contest
2015 CIMI Doctoral Fellowship recipient, France
2013 Best paper nomination, GECCO 2013 GDS track

Selected Publications

2018 DG Wilson, S Cussat-Blanc, H Luga, JF Miller. Evolving simple programs for playing Atari games. *Proceedings of the 2018 Genetic and Evolutionary Computation Conference*.

2018 DG Wilson, S Rodrigues, C Segura, I Loshchilov, F Hutter, G López Buenfil, A Kheiri, E Keedwell, M Ocampo-Pineda, E Özcan, S Ivvan Valdez Peña, B Goldman, S Botello Rionda, A Hernández-Aguirre, K Veeramachaneni, S Cussat-Blanc. Evolutionary computation for wind farm layout optimization. *Renewable Energy*.

2017 DG Wilson, J Disset, S Cussat-Blanc, Y Duthen, H Luga. Learning aquatic locomotion with animats. *Proceedings of the 14th European Conference on Artificial Life 2017*.

2017 DG Wilson. The Ethics of Automated Behavioral Microtargeting. *AI Matters, Volume 3*.

2017 J Disset, DG Wilson, S Cussat-Blanc, S Sanchez, H Luga, Y Duthen. A comparison of genetic regulatory network dynamics and encoding. *Proceedings of the 2017 Genetic and Evolutionary Computation Conference*.

2017 JF Miller, DG Wilson. A developmental artificial neural network model for solving multiple problems. *Proceedings of the 2017 Genetic and Evolutionary Computation Conference*.

2016 DG Wilson, S Cussat-Blanc, H Luga. The Evolution of Artificial Neurogenesis. *Proceedings of the 2016 Genetic and Evolutionary Computation Conference Companion*.

2016 D Wilson, S Cussat-Blanc, H Luga. Evolving genetic regulatory networks for online neurogenesis. *Morphogenetic Engineering Workshop at Artificial Life XV*.

2014 DG Wilson, S Cussat-Blanc, K Veeramachaneni, UM O'Reilly, H Luga. A continuous developmental model for wind farm layout optimization. *Proceedings of the 2014 Genetic and Evolutionary Computation Conference*.

2013 DG Wilson, E Awa, S Cussat-Blanc, K Veeramachaneni, UM O'Reilly. On learning to generate wind farm layouts. *Proceedings of the 2013 Genetic and Evolutionary Computation Conference*.

2013 DG Wilson, K Veeramachaneni, UM O'Reilly. Cloud scale distributed evolutionary strategies for high dimensional problems. *European Conference on the Applications of Evolutionary Computation*.

Invited Talks

2018 Evolving simple programs for playing Atari games, REAL lab, IT University of Copenhagen
2017 Evolving neural programs for continuous learning, CSAIL, MIT
2017 Introduction to the Julia language, IRIT, University of Toulouse
2016 Introduction to Deep Learning, IRIT, University of Toulouse
2012 Optimization of wind farm turbine placement, MIT Energy Night

Organizations

2018 Editorial Board member, Press Start journal
2017-2018 Communications Chair, ISAL Student group