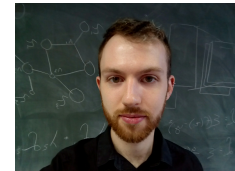


Dennis G Wilson, PhD

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<https://d9w.github.io>



EDUCATION

- 2016-2019 PhD in the REVA team, IRIT, University of Toulouse, France
“Evolving Principles of Artificial Neural Design,” advised by Sylvain Cussat-Blanc and Hervé Luga
- 2010-2014 BSci in Electrical Engineering and Computer Science, MIT, Cambridge, USA

ACADEMIC POSITIONS

- 2019-present Assistant Professor at ISAE-SUPAERO
Assistant Professor of Artificial Intelligence and Data Science in the Complex Systems Engineering Department, associated with Supaero Reinforcement Learning Initiative, IRIT and ANITI
- 2019 Postdoctoral researcher at University of Toulouse
Research on the application of genetic programming to electrical grid crisis management
- 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

INDUSTRY EXPERIENCE

- 2019-2021 Co-Founder at Nautilia Computing, Toulouse, France
Artificial Intelligence consulting and services for environment observation and simulation
- 2014-2016 Software engineer at Infinidat LTD, Israel
Full time position in infrastructure development for data storage systems

TEACHING

- 2019-present Artificial Intelligence and Data Science, ISAE-SUPAERO
Head of a 240 hour Master's level program on AI and data science with 60 students
- 2018-2019 Computational Intelligence, Lecturer, University of Toulouse
- 2016-2018 Databases, Lecturer, University of Toulouse
- 2014 Introduction to Python, Teaching Assistant, MIT

ADVISING

- 2022-present Paul-Antoine le Tolguenec
PhD in reinforcement learning for autopilot testing, with ANITI and Airbus
- 2021-present Valerii Sukhorukov
Postdoctoral research in modelling neural cultures with ANNs, with IRIT
- 2021-2022 Erwan Lecarpentier
Postdoctoral research in genetic programming for interpretable control, with IRT and IRIT
- 2021-present Paul Templier
PhD in evolutionary strategies for neuroevolution
- 2020-present Kaitlin Maile
PhD in developmental neural networks, with IRIT
- 2020-present Mahmoud Al Najar
PhD in AI for coastal geography estimation and forecasting, with the CNES and IRD

GRANTS, HONORS & AWARDS

2021	CIFRE thesis grant with ANITI and Airbus
2020	Winner, GECCO competition on agent control in DOTA
2020	SIGEVO Best Dissertation Award
2019	3 thesis grants from the CNES, La Région Occitane, and ISAE-Supaero
2017	SIGEVO student representative, ACM Turing Award Celebration
2017	Winner, SIGAI Essay Contest on Ethics and AI
2015	CIMI Doctoral Fellowship recipient, France

SELECTED PUBLICATIONS

2022	Al Najar, Mahmoud, et al. “Genetic Improvement of Shoreline Evolution Forecasting Models.” <i>Genetic Improvement Workshop, GECCO</i> . ACM, 2022.
2022	Maile, Kaitlin, et al. “When, where, and how to add new neurons to ANNs.” <i>AutoML Conference</i> . 2022
2021	Templier, Paul, et al. “A geometric encoding for neural network evolution.” <i>Proceedings of the Genetic and Evolutionary Computation Conference</i> . ACM, 2021.
2021	Al Najar, Mahmoud, et al. “Satellite derived bathymetry using deep learning.” <i>Machine Learning</i> . Springer, 2021.
2019	Wilson, Dennis G. <i>Evolving Principles of Artificial Neural Design</i> . Diss. Université de Toulouse, 2019.
2019	Miller, Julian F., et al. “Evolving Developmental Programs That Build Neural Networks for Solving Multiple Problems.” <i>Genetic Programming Theory and Practice XVI</i> . Springer, 2019.
2018	Wilson, Dennis G., et al. “Evolving simple programs for playing Atari games.” <i>Proceedings of the Genetic and Evolutionary Computation Conference</i> . ACM, 2018.
2018	Wilson, Dennis G., et al. “Evolving Differentiable Gene Regulatory Networks.” <i>Evolutionary Machine Learning Workshop</i> . PPSN, 2018.
2018	Wilson, Dennis G., et al. “Evolutionary computation for wind farm layout optimization.” <i>Renewable energy</i> . Elsevier, 2018.
2014	Wilson, Dennis G., et al. “On learning to generate wind farm layouts.” <i>Proceedings of the 15th annual conference on Genetic and evolutionary computation</i> . ACM, 2013.

INVITED TALKS

2021	Evolutionary Reinforcement Learning, Reinforcement Learning Virtual School
2018	Julia for Machine Learning, ANF APSEM 2018, CNRS, Toulouse
2018	Evolving simple programs for playing Atari games, IT University of Copenhagen
2017	Evolving neural programs for continuous learning, CSAIL, MIT

ORGANIZATIONAL ROLES

present	Reviewer for ECJ, TELO, GPED, AAAI, IJCAI, ECAI, PPSN, GECCO, ALIFE, NeurIPS
2021-present	Mentor, Climate Change AI Workshop
2021-present	ISAE Representative, AI for the Environment Committee
2021-2022	Secretary, ISAL Diversity, Equity, and Inclusion Committee
2019-2021	Chair, Complex Systems Track, GECCO
2018-2020	Organizer, Developmental Neural Networks Workshop
2017-2018	Communications Chair, ISAL Student group