

Dr. Julien Vitay

RESEARCHER IN ARTIFICIAL INTELLIGENCE · DATA SCIENTIST · PYTHON DEVELOPER / SCIENTIFIC COMPUTING

Blümlerstraße 15. 04229 Leipzig, Germany

🏠 11.12.1979 📞 (+49) 1573-2244-832 ✉️ julien.vitay@gmail.com 🏠 https://julien-vitay.net 🌐 vitay 📄 julien-vitay-9287b6b9

Education

Chemnitz University of Technology

HABILITATION - COMPUTER SCIENCE

Chemnitz, Germany

January 2017

University Henri Poincaré Nancy-I

PH.D - COMPUTER SCIENCE

Nancy, France

June 2006

École Supérieure d'Électricité - Supélec

ENGINEER IN MICROELECTRONICS AND SIGNAL PROCESSING

Rennes, France

Jun 2002

Experience

Assistant Professor - Intelligence Artificielle

CHEMNITZ UNIVERSITY OF TECHNOLOGY, DEPARTMENT OF COMPUTER SCIENCE

Chemnitz, Germany

2011 - Today

- Creation and teaching of complete modules: Machine Learning, Computer Vision, Deep Reinforcement Learning.
- Supervision of 100+ bachelor's/master's theses, most of them in companies: deep learning, computer vision, data science, automotive software, time series processing, etc.
- Research in computational neuroscience, reinforcement learning and decision-making.
- Machine learning research: reservoir computing, deep reinforcement learning, cyber security, anomaly detection, geometric deep learning, emotion recognition.

Postdoc

UNIVERSITY OF MÜNSTER, INSTITUTE OF PSYCHOLOGY.

Münster, Germany

2006 - 2011

- Computational neuroscience research on reinforcement learning, dopamine and basal ganglia.

Ph.D student and teaching assistant

INRIA LORRAINE (LORIA), TEAM CORTEX.

Nancy, France

2002 - 2006

- Research in neurorobotics (Mirrorbot European project), visual attention, basal ganglia.
- Teaching of Java, C, computer architecture.

Selected projects

ANNarchy (Artificial Neural Networks architect)

CREATOR AND MAIN DEVELOPER.

 ANNarchy/ANNarchy

2007 - Today

- Bio-inspired neural network simulator in Python, based on high-performance C++ code generation.
- Distributed computing with OpenMP and CUDA, self-tuning methods for computational kernels.

ML@Karoprod mesh predictor

BMBF RESEARCH PROJECT.

 hamkerlab/ML-Karoprod-MeshPredictor

2018 - 2022

- Framework for accelerating the search for functional parameters in finite element simulations (FEM), using deep neural networks and implicit representations (NERF).

Deep Reinforcement Learning

WEBBOOK.

 vitay/deeprl

2018 - Today

- Open-source book on the state of the art in deep reinforcement learning.

Compétences

Programming Python, C++, C, Java, Matlab, Julia

Languages French, English, German

Machine Learning pytorch, tensorflow, scikit-learn, XGBoost, rllib, tianshou, mlflow

Stack linux, git, docker, gcp, openMP, CUDA