

CURRICULUM VITAE

IGOR GRIDCHYN, PhD



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AI/ML



- ✓ AI/ML solutions delivering \$M+ value in production environments
- ✓ **Publication record** incl. first of its kind brain-computer interface
- ✓ Own real-time **algorithmic crypto** trading bot in production
- ✓ **Tabular ML, computer vision, gen AI/LLM/agent, document AI**
- ✓ **End-to-end AI/ML experience**, from C++ optimization to architecture design
- ✓ **Explainable** and grounded AI solutions
- ✓ **Fast adoption** of state-of-the-art

TECH STACK



- ✓ Vertex AI, SageMaker, Databricks
- ✓ Python: PyTorch, TensorFlow, Scikit-learn, XGBoost, LangChain, H2O, AutoGluon
- ✓ AWS, GCP, MLflow
- ✓ C#, Objective C, C++ (before 2020)
- ✓ R, MATLAB, SQL
- ✓ git/svn, CI/CD, Agile, MLOps

LANGUAGES



English ●●●●●○
German ●●●●○●
Ukrainian, Russian ●●●●●●

Experienced AI practitioner with a strong track record in industry and academia, delivering production AI solutions with \$M+ impact. Co-led TetraScience's AI expansion while also independently developing an end-to-end crypto trading solution. Now seeking new opportunities to drive even greater impact or lead a high-performing AI team.

EDUCATION



09.2012 – 12.2018

Institute of Science and Technology Austria, Klosterneuburg, Austria
PhD in **Computational Neuroscience / Systems Neuroscience**

09.2005 – 06.2011

Taras Shevchenko National University of Kiev, Kiev, Ukraine
MSc in **Informatics** (with honors, GPA 4.92 out of 5.0)
BSc in **Applied Mathematics** (with honors, GPA 5.0 out of 5.0)

EXPERIENCE



11.2020 – current **AI Architect**

TetraScience (Series B start-up), Boston, USA (remote)

Design, implement and deploy in production scientific AI / gen AI solutions for pharma and biotech customers. ADMET, cell line development, microscopy imaging, Digital QC, document AI.



09.2018 – 10.2020 **Postdoctoral Researcher**

Institute of Science and Technology Austria, Klosterneuburg, Austria

Group [Prof. Csicsvari](#): data analysis/machine learning on brain signal data (Python: NumPy, scikit-learn, SciPy, pandas, PyTorch), software development: machine BMI, spike sorting (Python, C++)



09.2012 – 09.2018 **Researcher**

Institute of Science and Technology Austria, Klosterneuburg, Austria

Group [Prof. Csicsvari](#): Design and implementation of [brain-computer interface](#) for real-time decoding of neural signal and memory manipulation during sleep, [Neuron](#) paper (Python, C++, MATLAB)
Groups [Prof. Lampert](#), [Prof. Kolmogorov](#): online machine learning (C++, OpenCV, Python); discrete optimization / computer vision ([ICCV](#) paper)



10.2010 – 09.2012 **Research Software Engineer**

Viewdle (Startup, acquired by Google in 2012), Kiev, Ukraine

Research & development of face detection and recognition algorithms later integrated into Motorola phones (Python, C++, CI/CD, Agile)



05.2011 – 08.2011, 05.2010 – 08.2010 **Software Developer**

Google 'Summer of Code' Intern

[Database abstraction layer](#) for Scilab (C++, SQL) – **13000+ downloads**
[Interfacing .NET](#) module for Scilab (C++, C#/.NET)



05.2007 – 10.2008 (part-time) **Junior Software Developer**

Institute of Telecommunications and Global Information Space, Kiev, Ukraine
Development of visual SQL query builder (C#/.NET, SQL)

REFERENCE

[Prof. Csicsvari](#), IST Austria: jcsicsvari@ist.ac.at

"Igor has a unique set of skills involving the ability to develop complex software systems, refine and invent new algorithms and computational, including machine learning, methods. His work in my lab demonstrated all these skills."

Publications

Source	Title	Authors
Neuron, 2024	Network role of hippocampal cholecystokinin-expressing interneurons in freely moving mice	Rangel Guerrero D.K., Barayeu U., Balueva K., Baracska P., Gridchyn I. , Nardin M., Roth C., Wulff P., Csicsvari J.
PLOS Biology, 2022	Transcription factor Kayak enhances <i>Drosophila</i> macrophage invasive migration via actin regulators.	V. Belyaeva, S. Wachner, A., Gyoergy, S. Emtenani, I. Gridchyn , M. Akhmanova, M. Linder, M. Roblek, M. Sibilia, D. Siekhaus
Neuron, 2020	Assembly-specific disruption of hippocampal replay leads to selective memory deficit	I. Gridchyn , P. Schoenenberger, J. O'Neill, J. Csicsvari
eLife, 2020	Optogenetic inhibition-mediated activity-dependent modification of CA1 pyramidal-interneuron connections during behavior	I. Gridchyn , P. Schoenenberger, J. O'Neill, J. Csicsvari
International Conference on Computer Vision, 2013	Potts model, parametric max-flow and k-submodular functions	I. Gridchyn , V. Kolmogorov

Conferences and Posters

Source	Title	Authors
FENS (Federation of European Neuroscience Societies) Forum, online, 2020	Selective disruption of hippocampal map retrieval using brain-machine interface for real-time assembly decoding and optogenetics	I. Gridchyn , P. Schoenenberger, J O'Neill, J. Csicsvari
Spring Hippocampal Research Conference Taormina, Sicily, 2019	Assembly-specific disruption of hippocampal replay leads to selective memory deficit	I. Gridchyn , P. Schoenenberger, J O'Neill, J. Csicsvari
FENS (Federation of European Neuroscience Societies) Forum, Berlin, 2018	Assembly-specific disruption of hippocampal reactivation leads to selective memory deficit	I. Gridchyn , P. Schoenenberger, J O'Neill, J. Csicsvari
MMCM (Measuring and Modelling Cell migration) meeting, Vienna, 2018	Balancing macrophage invasion: are there "transcriptional scales"?	V. Belyaeva, I. Gridchyn , D. Siekhaus
"Engineering Multicellular Self-Organization" conference, EPFL, Lausanne, 2017	<i>Drosophila</i> transcription factors Fos and NFIL3 regulate embryonic macrophage tissue invasion	V. Belyaeva, I. Gridchyn , D. Siekhaus
FENS (Federation of European Neuroscience Societies) Forum, Milan, Italy, 2014	Hidden Markov model for the decoding of spatial features	I. Gridchyn , D. Dupret, J. Csicsvari
First International Conference on Biologically Inspired Cognitive Architectures BICA-2010, Arlington, Virginia, USA, 2010	A metacognitive architecture for human-like teachable agents supporting sensible formation of knowledge	A. Samsonovich, A. Tarasiuk, I. Gridchyn , T. Vdovenko, Y. Belov
Proc. of international conference "Shevchenkivska Vesna - 2010", Kiev, Ukraine, 2010	Semantic integration of Wikipedia articles into WordNet	I. Gridchyn , D. Lozycky, A. Marchenko

Teaching / supervision experience

Teaching assistant for course "Applied Statistics" at the IST Austria: explanation of machine learning and statistical methods, practical application to real scientific datasets from IST Austria.

Supervision of interns (BSc/MSc) at the IST Austria (4 projects, 3 months each) : neural data analysis, real-time signal processing.