

Resume

PERSONAL INFORMATION

First name / Surname: Piotr Migdał
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Profiles: [GitHub](#), [StackExchange](#), [LinkedIn](#)

WHO AM I?

A data scientist (machine learning, deep learning and data visualization), with scientific background (PhD in quantum physics theory). Looking for machine learning research opportunities.

EXPERIENCE

- Independent deep learning consultant Sept 2017 –
 - [RaRe Technologies](#) instructor - recurrent neural networks for natural language processing
 - [Letme.ai](#) - supervising recommendation engine design
 - [MicroscopeIT](#) - training and consulting in image detection and segmentation
 - A series of deep learning in PyTorch workshops for [Samsung Research Poland](#)
 - Authoring technical blog posts on deep learning for [deepsense.ai](#)
- Visiting lecturer at [Imperial College Business School](#), London, UK Oct–Dec 2016, 2017
 - design and lecturing: Fundamentals of Database Technologies (MSc Business Analytics)
 - content: relational databases (PostgreSQL), big data (Spark), data frames (dplyr in R)
- Chief Data Science Instructor at [deepsense.ai](#) Jul 2015–Aug 2017
 - lead workshops in: machine learning (scikit-learn, XGBoost), data visualization (D3.js), big data (PySpark), deep learning (Keras, Theano, TensorFlow)
 - for companies: Newegg, Intel, BCG and others (in the USA and UK)
- Data analysis and data visualization freelancer Jan 2014–
 - for [Startup Compass](#), [Data4Cure](#), [LaboratoriumEE](#), [MediaLab Katowice](#) and others
 - [3DFlu – influenza visualization](#) for CENT, University of Warsaw
- Data Science Intern at [Startup Compass](#), San Francisco, CA, USA Jul–Oct 2013
 - designing distance function for software companies, based on a multidimensional dataset

RESEARCH

- **Related expertise:** quantum physics, statistical mechanics, graph theory, complex systems, complex networks, information theory, collective decision-making, mathematical psychology
- **Internships at:** ISI Foundation (Italy), ICFO (Spain), Univ. of Toruń (Poland), MIT (USA)
- **Research papers:** [13 publications](#), [10 available openly on arXiv](#)

EDUCATION

- ICFO - The Institute of Photonic Sciences, Castelldefels (Barcelona), Spain 2011–2014
- **PhD Degree**, *cum laude*; advisor: prof. Maciej Lewenstein
thesis: [Symmetries and self-similarity of many-body wavefunctions](#)
- University of Warsaw, Warsaw, Poland (MISMaP program) 2005–2011
- **MSc in Theoretical Physics** (grade: 5/5), **BSc in Mathematics (Game Theory)** (grade: 5/5)

PROJECTS, ACTIVITIES

- Popular blog posts (50k+ organic reach):
 - [Keras or PyTorch as your first deep learning framework](#) 2018
 - [Learning Deep Learning with Keras and king - man + woman is queen; but why?](#) 2017
- Developing [livelossplot](#) (500+ stars on GitHub) 2018–
- Mentored an applied research project: [Trypophobia trigger detector with convolutional neural networks - a browser plugin](#) 2017
- Designing and developing [Quantum Game with Photons](#) in JavaScript 2015–2017
- Voluntary tutor of the [Polish Children's Fund](#) 2006–

AWARDS, SCHOLARSHIPS

- Personal grant for Matura Exam Data Analysis from DELab UW Apr 2015
- National Scholarship for exceptional achievements in science 2007–2010
- [Research Science Institute](#) (Massachusetts Institute of Technology, MA, USA) 2005
- Bronze Medal in the International Physics Olympiad (Pohang, South Korea) 2004

SKILLS

- Languages: Polish (native), English (fluent)
- Programming languages/technologies: Python (data science stack: Jupyter Notebook, NumPy, SciPy, Pandas, scikit-learn, XGBoost, Keras with TensorFlow, PyTorch, Gensim), JavaScript (D3.js), SQL, LaTeX, Git