Resume

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

HOW AM I?
A data scientist (machine learning, deep learning and data visualization), with scientific background (PhD in quantum physics theory).

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
- 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 (Spark), deep learning (Keras, Theano, TensorFlow)
  — for companies: Newegg, Intel, BCG and others
- 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**: 12 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):
  Learning Deep Learning with Keras and king - man + woman is queen; but why?   2017
- Designing and developing Quantum Game with Photons in JavaScript   May 2015–
- Designed and lead an intensive one-week training Data Analysis Summer School in Python for sociologists and psychologists   Jul 2015
- Voluntary tutor of the Polish Children's Fund   2006–

AWARDS, SCHOLARSHIPS

- Personal grant for Matura Exam Data Analysis from DELab UW   Apr 2015
- ICFO Innovation Fund grant awarded for startup Confrenzy   Oct 2011
- 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, TensorFlow, PyTorch, Gensim), JavaScript (D3.js), R (ggplot2, dplyr, mirt, party), SQL, LaTeX, Gephi, Git