

MARCIN BOGDANSKI

DEEP LEARNING ENGINEER

07514147567 - Bristol, UK - <https://marcinbogdanski.github.io/> - marcin.bogdanski@gmail.com

ABOUT ME

- I am passionate about **Deep Reinforcement Learning** and everything related to it. I believe building friendly Artificial General Intelligence is the humanity most important undertaking.
- Since my degree in 2007 I have **designed, built** and **debugged** countless **neural networks** for multitude of side projects. Since 2012 I (try to) keep up with Deep Learning and DeepRL revolution.
- I have **10+ years** of commercial experience in **software and robotics** and over **3 years** in **deep learning**. Currently I am looking to extend and apply my knowledge to build solutions to real-world problems.
- In my previous robotics career, I was exposed to all aspects of high-tech R&D projects giving me unique appreciation to technical, human and business factors while successfully delivering work to customers.

KEY SKILLS AND ABILITIES

DEEP LEARNING	DeepRL: AlphaZero, Atari DQN , robot control						
	Vision : classification, segmentation, detection , captioning						
	NLP : document classification, summarisation , translation						
	Audio: trigger word detection, speech recognition						
	Generative: face generation, music generation						
OTHER ML	evolutionary algorithms (academic publications)						
FRAMEWORKS	PyTorch, Keras, TensorFlow , Amazon AWS, Google Cloud						
PROGRAMMING	Python (primary), C/C++ , C#.NET , many other						
RESEARCH	literature review, hypothesis testing, writing papers						
MATHEMATICS	linear algebra, multivariable calculus, modelling, probability						
ROBOTICS	signal processing, navigation, control systems, swarm AI						
SOFT SKILLS	customer liaison, project management, team leadership						

COMMERCIAL - DEEP LEARNING

DEEP LEARNING ENG. Consulting (2017 - present)

- Extended **AlphaZero** to **imperfect information** games, validated against Facebook OpenGo
- Built a vision system which **won \$20,000 first prize** at Melbourne Knowledge Week
- Designed NLP algorithm for automated **text summarisation** of financial news articles
- Designed neural architecture for **fault detection** on images of **wind turbine blades**
- Developed system for predictive maintenance based on data from home IoT sensors
- Introduced vision system for **tooling wear assessment** for a major aerospace manufacturer
- Implemented **image segmentation** and **object detection** for obstacle avoidance in ground robot
- Implemented **swarm AI** coordinating 200+ robots in simulation

PERSONAL PROJECTS

The flying zoo of my personal projects:

- <https://marcinbogdanski.github.io/>

COMMERCIAL - ROBOTICS

TECHNICAL DIRECTOR DroneX Ltd (2014 - 2017)

- Lead the team of engineers to design and build hardware and software for many drone projects
- Delivered all projects to full customer satisfaction (some projects resulted in patents)

TEAM LEADER Go Science Ltd (2011 - 2014)

- Responsible for multiple software and hardware systems integration on a deep-water vehicle.
- Lead the team of engineers to deliver multiple successful customer facing trials.

SOFTWARE ENGINEER Imagination Tech. (2008 - 2009)

- Built parts of Win7 GPU driver in C++ and Python

ACADEMIC

Research Assistant Univ. of Bielsko-Biala (2010-2011)

- Co-authored multiple papers on applications of evolutionary algorithms to server task scheduling

BSc Computer Science Univ. of Bielsko-Biala (2004-2007)

- First-class honours.