

# Gábor Balázs

curriculum vitae

Cartagena, Spain

[gabalz@gandg.ai](mailto:gabalz@gandg.ai)  
<https://gabalz.gandg.ai>

## Education and Employment

---

- 2020 -** ***G&G (Cartagena, Spain)***  
Freelance Machine Learning Consultant:  
2020-2024 quantitative market-neutral equity trading for **Causality Group**;  
2021-2023 wastewater treatment plant optimization for **KavecskiTerv**;  
2020- scientific research on machine learning.
- 2016 - 2020** ***Causality Group (Madrid, Spain)***  
Quantitative Analyst in a private fund:  
- time series regression, online learning;  
- market-neutral equity trading, backtesting;  
- factor modelling, portfolio optimization and boosting, risk control;  
- startup experience, using Python, SQL, Bash, and Ubuntu Linux.
- 2009 - 2016** ***University of Alberta (Edmonton, Canada)***  
PhD in Statistical Machine Learning (Department of Computing Science)  
under the supervision of **Csaba Szepesvári** and **Dale Schuurmans**.  
Thesis: **Convex Regression: Theory, Practice, and Applications**;  
Programming in Matlab/Octave, C, and Java.  
Teaching assistantships:  
- *Human-Computer Interaction* for **Walter F. Bischof** (2013);  
- *Intelligent Systems (Introduction to AI)* for **Richard S. Sutton** (2012);  
- *Experimental Mobile Robotics* for **Csaba Szepesvári** (2009-2012);  
- *Topics in Machine Learning* for **Russell Greiner** (2009).
- 2005 - 2009** ***Nokia Solutions and Networks (Budapest, Hungary)***  
Terminal Management Server development (2 years):  
- 3G server side programming;  
- using Java, SQL, and Redhat Enterprise Linux.  
Mobile Switching Center Server development (2 years):  
- 3G user plane development;  
- programming in **TNSDL**, C, Bash, and Perl.
- 2003 - 2005** ***Eötvös Loránd University (Budapest, Hungary)***  
MSc in Computer Science (excellent)  
Thesis : *Relationship between error correcting codes and cryptography (hun)*
- 1999 - 2003** ***Eötvös Loránd University (Budapest, Hungary)***  
BSc in Computer Science (with distinction)  
Thesis : *Simulation of routing algorithms (hun)*

## Selected Papers

---

**Adaptively partitioning max-affine estimators for convex regression,**  
Gábor Balázs, AISTATS, 2022.

**Max-affine estimators for convex stochastic programming,**  
Gábor Balázs, András György, Csaba Szepesvári, arXiv:1609.06331, 2016.

**Near-optimal max-affine estimators for convex regression,**  
Gábor Balázs, András György, Csaba Szepesvári, AISTATS, 2015.

## Awards and Competitions

---

**2024- Competing on Kaggle**  
<https://www.kaggle.com/gabalz>

**2013 Graduate Student Teaching Award**  
University of Alberta, Faculty of Graduate Studies and Research.  
"In recognition of excellence in the performance of  
teaching assistant duties in the Faculty of Science."

**2009 Reinforcement Learning Competition**  
*Hobby-RL* team with Márk Horváth:  
- Acrobot domain, 1st place;  
- Polyathlon domain, 1st place.

## Software

---

### Convex Regression

Implementation for convex regression algorithms of various papers.  
- written in Python, experiment setup in Jupyter Notebook.

### Robot Segway Simulator

Simulator for a LEGO robot segway:  
- written in Java using LWJGL for OpenGL visualization;  
- educational purpose, teaching the basics of control and particle filtering based localization;  
- developed for Csaba Szepesvári's Experimental Mobile Robotics course in 2011-2012.

### RL-Glue Lisp Codec

Common Lisp interface for the RL-Glue library:  
- developed for the Reinforcement Learning Competition in 2008.

## Miscellaneous

---

**Languages:** Hungarian (native), English (fluent), Spanish (conversational)  
**Skills:** Python, Java, Matlab, C, Common Lisp, SQL, Bash, Linux  
**Reviewing:** AISTATS, ICML, COLT, ICLR, IEEE Trans. on Info. Theory