

# Martin Drozdík

## Curriculum Vitae

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### Research interests

- Multi-objective optimization
- Differential evolution
- Computational geometry
- Evolutionary computation in general

### Key skills

MATHEMATICS Algorithm design, graph algorithms, probability theory, statistics.  
C++ **6 years** active experience. Deep interest in best practices and C++11/14. Experience with high-performance code and parallelization.  
QT **3 years** active experience, especially in **GUI** design and implementation.

### IT skills

Operating systems LINUX / UBUNTU / BASH  
Office MERCURIAL, LIBREOFFICE, LATEX, INKSCAPE  
Programming JAVASCRIPT, MATLAB / OCTAVE, SQL, R, EIGEN, MATHGL  
Web development HTML, CSS

### Awards and scholarships

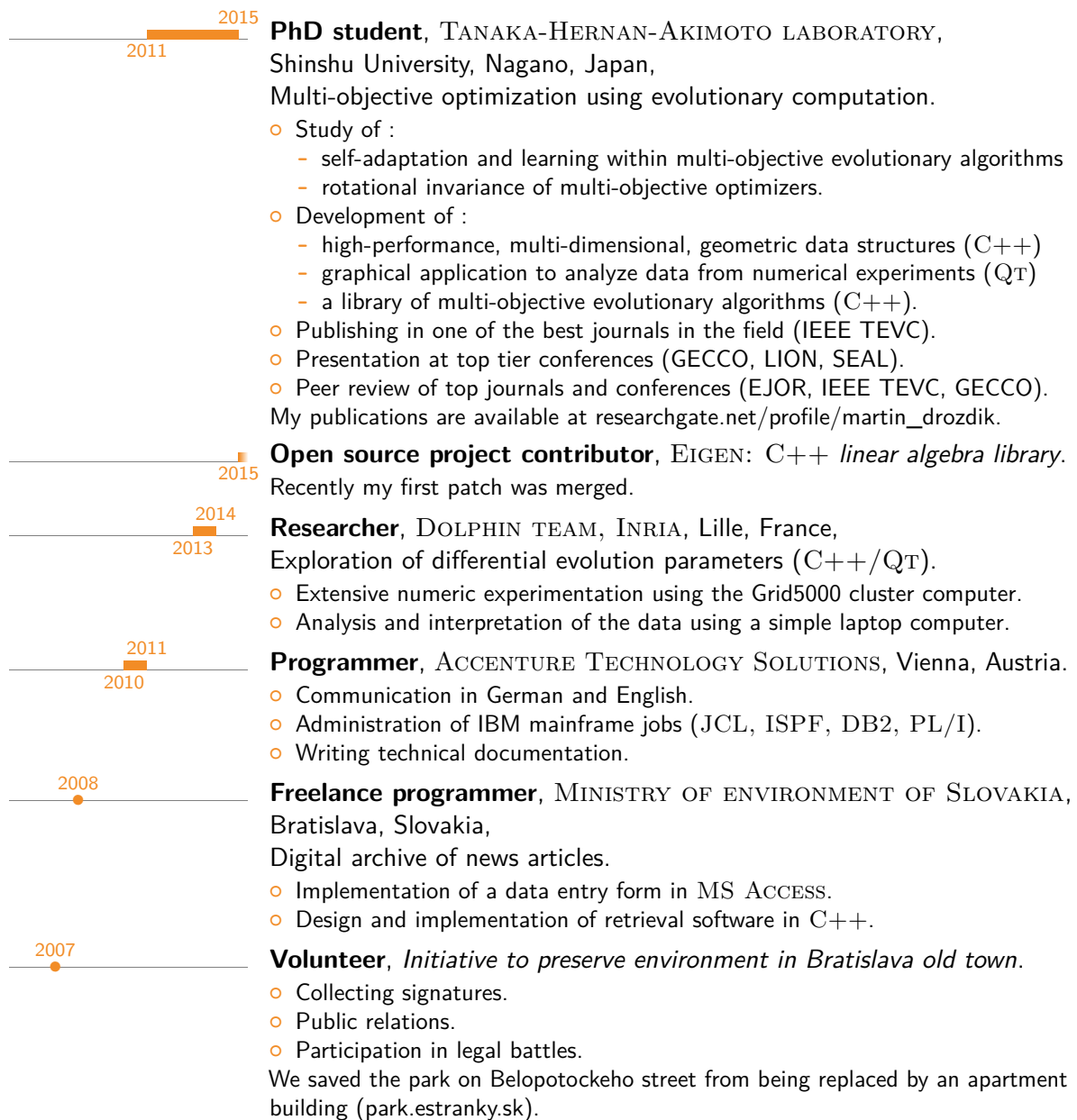
2014  
2010  
2013  
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2008  
2005

**Monbukagakusho**, *Scholarship of the Japanese Ministry of Education*, Awarded to two students from Slovakia annually to pursue a PhD course.  
**IEEE Young Researcher Presentation Award**, *IEEE Session*, Niigata.  
**Erasmus**, *Full scholarship and tuition for 6 months (University of Pisa)*.  
**Dean's motivational scholarship**, *top 10% of class*, awarded 4 times.

### About me

I have a very strong sense of *beauty* and *quality*. I aim for the highest efficiency in everything I do, and I always strive to *do The right thing*.

## Professional experience



## Languages

<b>English</b>	Advanced	10+ years, IT and mathematics terminology.
<b>Japanese</b>	Intermediate	Living in Japan for 3 years, actively studying.
<b>German</b>	Intermediate	8 months on an IT project in Austria.
<b>Italian</b>	Intermediate	Studied mathematics and economics in Italian.
<b>French</b>	Beginner	Actively studying.
<b>Slovak/Czech</b>	Native	

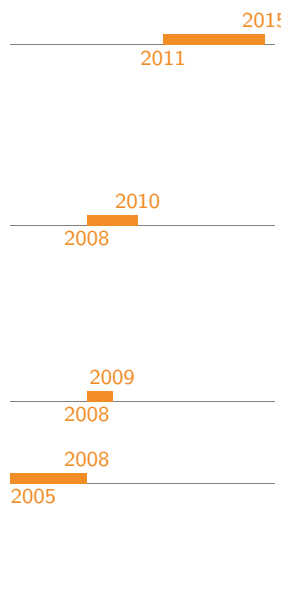
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## Major publications

- 2015 M. Drozdik, H. Aguirre, Y. Akimoto, and K. Tanaka  
**Comparison of Parameter Control Mechanisms in Multi-objective Differential Evolution**  
Presented at the *Learning and Intelligent Optimization (LION9)* conference, To appear in *Lecture Notes in Computer Science*.
- 2014 M. Drozdik, H. Aguirre, Y. Akimoto, and K. Tanaka  
**Computational Cost Reduction of Non-dominated Sorting Using M-front**  
In *IEEE Transactions on Evolutionary Computation*.
- 2014 M. Drozdik, K. Tanaka, H. Aguirre, S. Verel, A. Liefooghe, and B. Derbel  
**An Analysis of Differential Evolution Parameters on Rotated Bi-objective Optimization Functions**  
Presented at the *Simulated Evolution and Learning (SEAL2014)* conference, published in *Lecture Notes in Computer Science, volume 8886*.
- 2013 M. Drozdik, H. Aguirre, and K. Tanaka  
**Attempt to Reduce the Computational Complexity in Multi-objective Differential Evolution Algorithms**  
Presented at the *GECCO 2013 conference*, published in *Proceedings of the 15th Annual Conference on Genetic and Evolutionary Computation*.

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## Formal education

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- A horizontal timeline bar with orange segments. The years 2015, 2011, 2010, 2008, 2009, 2008, and 2005 are marked along the bar, corresponding to the education milestones listed to the right.
- 2015 **PhD, COMPUTER SCIENCE**,  
Department of Mathematics and System Development, Shinshu University,  
Nagano, Japan, Graduating on 25<sup>th</sup> of March 2015.  
Title of thesis : Improvements in Understanding and Performance of Multi-objective Differential Evolution
- 2010 **Master, APPLIED MATHEMATICS**,  
Comenius University in Bratislava, Slovakia,  
Graduated with honors.  
Title of thesis : Stochastic Processes in State Space Form and ML Estimation of Their Parameters
- 2009 **Erasmus exchange student, MATHEMATICS AND ECONOMICS**,  
University of Pisa, Italy.
- 2008 **Bachelor, APPLIED MATHEMATICS**,  
Comenius University in Bratislava, Slovakia,  
Graduated with honors.  
Title of thesis : Strange Functions in Mathematical Analysis

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## Free time

- Football I play regularly.
- Videogames Real time strategy.
- Sci-fi literature Especially Robert Heinlein, Arthur C. Clarke, and Joe Haldeman.