

Curriculum Vitae

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<https://aabbtree77.github.io/>

1 Education

B.Sc. (Electrical Engineering), 1999, Vilnius Gediminas Technical University.
M.Sc. (Tech.), 2001, D.Sc. (Tech.), 2008, Helsinki University of Technology.

2 Employment

01.02.2014–Now: Random freelance, IoT/3D/ML projects, see Sect. 7, 8.

01.02.2013–31.01.2014: Faculty of Informatics at the University of Lugano,
Via Giuseppe Buffi 13, CH-6904 Lugano, Switzerland.

01.09.2011–31.12.2012: DEMO, École Nationale Supérieure des Mines de Saint-Étienne,
158 cours Fauriel, 42023 Saint-Étienne, CEDEX2, France.

01.09.2008–31.08.2009: Department of Neurobiology at the University of California, Los Angeles,
73-235 CHS, Los Angeles, CA 90095-1763.

01.05.2000–31.07.2008: Faculty of Information and Natural Sciences at Helsinki University of Technology,
P.O.Box 5400 (Konemiehentie 2), FI-02015, Finland.

3 Publications

1. D. Boscaini, R. Girdziušas, and M. M. Bronstein. Coulomb shapes: using electrostatic forces for deformation-invariant shape representation. In *Eurographics W. 3D Object Retrieval*, 2014. <https://diglib.eg.org/handle/10.2312/3dor.20141044.009-015>.
2. R. Girdziušas, J. Janusevskis, and R. Le Riche. On integration of multi-point improvements. In *NIPS W. Bayesian Opt. Dec. Making*, 2012. http://www.emse.fr/~leriche/integ_multiEI_nips2012_final.pdf.
3. R. Le Riche, R. Girdziušas, and J. Janusevskis. A study of asynchronous budgeted optimization. In *NIPS W. Bayesian Opt. Dec. Making*, 2012. http://www.emse.fr/~leriche/synchro_asynchro_final.pdf.
4. R. Girdziušas, R. Le Riche, F. Viale, and D. Ginsbourger. Parallel budgeted optimization applied to the design of an air duct. 2012. <http://hal.archives-ouvertes.fr/hal-00723427>.
5. R. Le Riche, R. Girdziušas, D. Villanueva, G. Picard, and D. Ginsbourger. Squaring the engineering optimization circle: Distributed global optimization algorithms for computationally expensive problems. 2012. http://www.emse.fr/~leriche/rio2012_LeRiche.pdf.
6. J. Janusevskis, R. Le Riche, D. Ginsbourger, and R. Girdziušas. Expected improvements for the asynchronous parallel global optimization of expensive functions: Potentials and challenges. In *LNCS*, volume 7219, pages 413–418, 2012.
7. R. Girdziušas and D. Ringach. The Jacobian singularity in the Thomson problem. Unpublished. 2009. <http://aabbtree77.github.io/pdfs/ucla2009.pdf>.

8. R. Girdziušas. *Stability and Inference in Discrete Diffusion Scale-Spaces*. PhD thesis, Helsinki Univ. of Tech. <https://aaltodoc.aalto.fi/handle/123456789/2999>. Advisors: E. Oja and J. Laaksonen (Helsinki Univ. of Tech.). External examiners: S. Siltanen (Tampere Univ. of Tech.) and K. Ruotsalainen (Univ. of Oulu). Opponents: S. Siltanen and A. Gotchev (Tampere Univ. of Tech.).
9. R. Girdziušas and J. Laaksonen. When is a discrete diffusion a scale-space? In *ICCV*, 2007. <http://dx.doi.org/10.1109/ICCV.2007.4408895>.
10. R. Girdziušas and J. Laaksonen. How marginal likelihood inference unifies entropy, correlation and SNR-based stopping in nonlinear diffusion scale-spaces. In *LNCS*, volume 4843, pages 811–820, 2007.
11. R. Girdziušas and J. Laaksonen. Jacobi alternative to Bayesian evidence maximization. In *LNCS*, volume 3697, pages 247–252, 2005.
12. R. Girdziušas and J. Laaksonen. Use of input deformations with Brownian motion. In *LNCS*, volume 3686, pages 219–228, 2005.
13. R. Girdziušas and J. Laaksonen. Optimal stopping and constraints for diffusion models of signals with discontinuities. In *LNAI*, volume 3720, pages 576–583, 2005.
14. R. Girdziušas and J. Laaksonen. Optimal ratio of Lamé moduli with application to motion of Jupiter storms. In *LNCS*, volume 3540, pages 1096–1106, 2005.
15. R. Girdziušas and J. Laaksonen. Gaussian processes of nonlinear diffusion filtering. In *IJCNN*, pages 1012–1017, 2005. <http://dx.doi.org/10.1109/IJCNN.2005.1555991>.
16. R. Girdziušas and J. Laaksonen. Gaussian process regression with fluid hyperpriors. In *LNCS*, volume 3316, pages 567–572, 2004.
17. M. Aksela, R. Girdziušas, J. Laaksonen, E. Oja, and J. Kangas. Methods for adaptive combination of classifiers. *IJDAR*, 6(1):23–41, 2003.
18. M. Aksela, R. Girdziušas, J. Laaksonen, E. Oja, and J. Kangas. Class-confidence critic combining. In *IWFHR*, pages 201–206, 2002. <http://dx.doi.org/10.1109/IWFHR.2002.1030909>.
19. R. Girdziušas. Discriminative online recognition of isolated handwritten characters. In *Master's thesis*, 2001.
20. R. Girdziušas and J. Laaksonen. Multilayer perceptron approach to non-rigid image matching. In *ICONIP*, volume 1, pages 491–496, 2001.

4 Talks

- Presentations: ICONIP 2001, 2004; ICAPR 2005; ICANN 2005; OMD2 meetings (Paris 2011, 2012).
- Posters: SCIA 2005; IJCNN 2005; ECML 2005; ICCV 2007; ACCV 2007.
- Invited talk at the DIKU group, the University of Copenhagen, 2008.

5 Awards

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| 01.09.1999–01.06.2000: | Nokia scholarship (Natalia Kantola, Robertas Tamulevičius). |
| 01.01.2002–01.07.2006: | ComMIT grant (postgraduate studies). |
| 09.11.2005–09.15.2005: | ICANN travel grant. |
| 07.01.2006–12.01.2006: | HUT scholarship. |
| 01.22.2008–01.24.2008: | Travel grant (Prof. Mads Nielsen). |
| 04.03.2008: | Doctoral thesis award: “Pass with Distinction”. |

6 Recommendation Letters

- Prof. Erkki Oja, Konemiehentie 2, P.O. Box 5400, 02015 HUT, Finland.
Email: Erkki.Oja@hut.fi, phone: +358-9-451 3265, fax: +358 9 451 3277.
- Doc. Jorma Laaksonen, Konemiehentie 2, P.O. Box 5400, 02015 HUT, Finland.
Email: Jorma.Laaksonen@hut.fi, phone: +358-9-451 3269, fax: +358 9 451 3277.
- Prof. Dario Ringach, Dep. of Neurobiology, UCLA, Los Angeles, CA 90095-1563.
Email: dario@ucla.edu, phone: +310 825 6606.
- Doc. Rodolphe Le Riche, DEMO, 158 cours Fauriel, 42023 Saint-Étienne, CEDEX 2.
Email: leriche@emse.fr, phone: +336 31 262 678.
- Assist. Prof. Michael M. Bronstein, SI-109, Via Giuseppe Buffi 13, 6904, Lugano, Switzerland.
Email: michael.bronstein@usi.ch, phone: +41 58 666 4120.

7 Code on github.com

C, avr-gcc: <https://github.com/aabbtree77/adast>
<https://github.com/aabbtree77/atmega8-ssd1306-ds18b20-dht22>
<https://github.com/aabbtree77/digispark-attiny85-command-line>

OpenGL, GLSL: <https://github.com/aabbtree77/twinpeekz>

Go vs Nim, glTF: <https://github.com/aabbtree77/twinpeekz2>

Python: <https://github.com/aabbtree77/esp32-vpn>
<https://github.com/aabbtree77/MNIST-0.17> (fork)
<https://github.com/aabbtree77/chateaudanet>

LaTeX: <https://github.com/aabbtree77/rgresume>

HTML, CSS, Js: <https://github.com/aabbtree77/aabbtree77.github.io>

8 Bug Reports/Fixes on github.com

Porting C++ Code from Windows to Linux: [Max1412/Graphics2/issues/24](https://github.com/Max1412/Graphics2/issues/24)

uint vs. uint32 in OpenGL: [go-gl/gl/issues/128](https://github.com/go-gl/gl/issues/128)

Screen Tearing: [godlikepanos/anki-3d-engine/issues/59](https://github.com/godlikepanos/anki-3d-engine/issues/59)

Deep vs. Shallow Copying: [polydojo/jispy/issues/1](https://github.com/polydojo/jispy/issues/1)

9 Additional Information

Date of birth: 30.12.1977.

Citizenship: Lithuanian (Lithuania, European Union).

Languages: English (7/10), Russian (8/10), Lithuanian (9/10).

Driver's licence: B ("U.S. only" experience, 2008-2009).

Highest Chess ELO: 2242 (Blitz on lichess.org, 27.04.2023).

Erdős number: 5 (P. Erdős–B. Bollobas–H. Mannila–E. Bingham–E. Oja).
4 (P. Erdős–A. M. Odlyzko–L. J. Guibas–M. M. Bronstein).

Admirable Engineers: Sergej Mavrodi, Satoshi Nakamoto, Ton Roosendaal,
Joe Armstrong, Alex Krizhevsky, Anthony De Meulemeester,
Thorsten Ball, Jonathan Blow, Andrej Movchan,
Fabien Letouzey, Thibault Duplessis, Ettore Di Giacinto,
Saulius Rakauskas...

Ideal Programming Language: Does not exist, close to Go 1.17.