

Eduard Bakštein

researcher, data analyst

18. 5. 1985

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EDUCATION

- 2010 - 2017 Faculty of Electrical Engineering, CTU in Prague
PhD in artificial intelligence and biocybernetics. Dissertation: *Deep Brain Recordings in Parkinson's Disease: Processing, Analysis and Fusion with Anatomical Models* (supervisor: assoc. prof. Daniel Novak and prof. Olga Stepankova, CTU Prague), *defended 03/2017*
- 2007 - 2010 Faculty of Electrical Engineering, CTU in Prague
Master's degree in Biomedical Engineering
Diploma thesis: *Tremor detection for Parkinsonian patients* (supervisor: prof. Kevin Warwick, University of Reading)
- 2004 - 2007 Faculty of Electrical Engineering, CTU in Prague
Bachelor Degree in Cybernetics and Measurements

WORK EXPERIENCE

- 10/2016 - *Researcher, head of biomedical signal processing research group*, National Institute of Mental Health, Klecany, Czech. Rep.
- 01/2016 - *External consultant in data analysis*, mindpax.me
- 10/2014 - 10/2016 *Junior researcher*, National Institute of Mental Health, Klecany, Czech. Rep.
- 2011 - *Technical fellow*, Dept. of Cybernetics, Faculty of Electrical Engineering, Czech Tech. University in Prague
- 2005 - 2013 Freelance webdeveloper and data analyst

KEY SKILLS

- Data analysis Explorative analysis of complex datasets, data cleaning, visualization, interpretation and mining.
- Machine learning Classifier design, evaluation and interpretation.
- Signal processing Handling, (pre)processing and transformation of time series, imagery and high-dimensional data.
- Statistical analysis Statistical evaluation of data.

OTHER EXPERIENCE

2011-2015	Working on European (ENIAC) and national (Czech Science foundation, Ministry of Education, Youth and Sports) grants, grant applications and management.
03/2009	Short-term study at École des Mines de Paris
2009	Study at NTNU Trondheim (Norway)
2004 - 2006	Main leader of children organization KRUH organizing events for ca. 80 children, leadership of the organizing team

LANGUAGE SKILLS

Czech	native speaker
English	fluent
German	communicative
Spanish	communicative

LINKS

- <http://neuro.felk.cvut.cz/team/#eduard-bakstein>

SELECTED PUBLICATIONS

- E. Bakstein, J. Burgess, K. Warwick, V. Ruiz, T. Aziz, and J. Stein (2012). “Parkinsonian tremor identification with multiple local field potential feature classification”. In: *Journal of Neuroscience Methods* 209.2, pp. 320–330. DOI: [10.1016/j.jneumeth.2012.06.027](https://doi.org/10.1016/j.jneumeth.2012.06.027) *IF(2012)=2.1*
- F. Spaniel, E. Bakstein, J. Anyz, J. Hlinka, T. Sieger, J. Hrdlicka, N. Gornerova, and C. Hoschl (2016). “Relapse in schizophrenia: definitively not a bolt from the blue”. In: *Neuroscience Letters* S0304-3940.16, pp. 30265–8. DOI: [10.1016/j.neulet.2016.04.044](https://doi.org/10.1016/j.neulet.2016.04.044) *IF(2015)=2.1*
- E. Bakstein, T. Sieger, J. Wild, D. Novak, J. Schneider, P. Vostatek, D. Urgosik, and R. Jech (2017). “Methods for Automatic Detection of Artifacts in Microelectrode Recordings”. In: *Journal of Neuroscience Methods, submitted 03/2017*
- E. Bakstein, T. Sieger, D. Novak, and R. Jech (2016). “Probabilistic Model of Neuronal Background Activity in Deep Brain Stimulation Trajectories”. In: *Information Technology in Bio- and Medical Informatics - 7th International Conference, (ITBAM)*
- M. Macas, L. Lhotska, E. Bakstein, D. Novak, J. Wild, T. Sieger, P. Vostatek, and R. Jech (2012). “Wrapper feature selection for small sample size data driven by complete error estimates”. In: *Computer Methods and Programs in Biomedicine* 108.1, pp. 138–150. DOI: [10.1016/j.cmpb.2012.02.006](https://doi.org/10.1016/j.cmpb.2012.02.006) *IF(2012)=1.6*