

# Eduard Bakštein

researcher, lead data scientist  
eda@zzz.cz, <http://bakstein.net>



---

## WORK EXPERIENCE

- 10/2016 - *Researcher, head of research group of Measurable psychiatry*, National Institute of Mental Health, Klecany, Czech. Rep.
- 2011 - *Researcher*, Dept. of Cybernetics, Faculty of Electrical Engineering, Czech Tech. University in Prague
- 10/2014 - 10/2016 *Junior researcher*, National Institute of Mental Health, Klecany, Czech. Rep.
- 01/2021 - *Chief Data Officer*, mindpax.me
- 01/2016 - 12/2020 *Data scientist*, mindpax.me
- 2005 - 2013 *Freelance webdeveloper and data analyst*

---

## 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

---

## KEY SKILLS

- Data analysis *Managing data science teams working on complex applied and research-oriented data analysis, modelling and machine-learning tasks.*
- Machine learning *Classifier design, evaluation and interpretation, working with high-dimensional data.*
- Statistical analysis *Statistical evaluation of data, Biostatistics, clinical study design.*
- Signal processing *Handling, (pre)processing and decision making based on time series,*

---

## AWARDS

- 2016 best publication award of the Czech Society for Clinical Neurophysiology for the paper Mikolas et. al. Psychol. Med. 2016
- 2018 Young Investigator Award at the World Congress on Medical Physics and Biomedical Engineering in Prague offered by the International Federation of Biomedical Engineers for his work on STN mapping (Bakstein et al. 2018)

---

## EDUCATIONAL AND EDUCATIONAL ACTIVITIES

lecturer and main teaching assistant, author of laboratory exercises at the FEE CTU in Prague in pregraduate courses on NIN-Neuroinformatics and BIO-Biometrics, previously also teaching Introduction to artificial intelligence and Data analysis.

Supervisor of multiple bachelor's and master's students and 2 PhD students.

---

## SCIENTOMETRIC PARAMETERS

- citations: 336 (Scopus) 291 (WoS) 546 (google scholar), as of Oct 17, 2024
- h-index: 11 (WoS, Scopus), 14 (google scholar)
- peer review: completed reviews for multiple biomedical-oriented journals including Neuroscience methods, Annals of Biomedical Engineering, Neuroscience methods, Biomedical Signal Processing and Control, British Journal of Psychiatry, Journal of Psychiatric research, Scientific reports and others, as well as conferences (ACM UBICOMP, EMBC, MICCAI)

---

## OTHER EXPERIENCE

- 2019- Recipient (co-PI) of national grant from the Czech Ministry of Health (NV19-04-00233). Previously also PI of education-oriented grants from the Ministry of Education. He worked as a part of the team on multiple national (Czech science foundation, ministry of health, ministry of education)
- 2015-2019 Working on European (ENIAC) and national (Czech Science foundation, Ministry of Education, Youth and Sports) grants, grant applications and management. 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
French	basic
Polish	basic

---

## LINKS

- <http://bakstein.net> - personal research page
  - <http://neuro.felk.cvut.cz/team/#eduard-bakstein>
- 

## SELECTED PUBLICATIONS

- I. Varga, E. Bakstein, G. Gilmore, J. May, and D. Novak (2024). “Statistical segmentation model for accurate electrode positioning in Parkinson’s deep brain stimulation based on clinical low-resolution image data and electrophysiology”. In: *PLoS ONE* 19.3 March, pp. 1–23. DOI: [10.1371/journal.pone.0298320](https://doi.org/10.1371/journal.pone.0298320)
- J. Schneider, E. Bakštein, M. Kolenič, P. Vostatek, C. U. Correll, D. Novák, and F. Španiel (2022a). “Motor activity patterns can distinguish between interepisode bipolar disorder patients and healthy controls”. In: *CNS Spectrums* 27.1, pp. 82–92. DOI: [10.1017/S1092852920001777](https://doi.org/10.1017/S1092852920001777), *IF(2020)=3.8*
- J. Anýž, E. Bakštein, D. Dudysová, K. Veldová, M. Kliková, E. Fárková, J. Koprivová, and F. Španiel (2019). “No wink of sleep: Population sleep characteristics in response to the brexit poll and the 2016 U.S. presidential election”. In: *Social Science and Medicine* 222.November 2018, pp. 112–121. DOI: [10.1016/j.socscimed.2018.12.024](https://doi.org/10.1016/j.socscimed.2018.12.024), *IF(2020)=4.4*
- E. Bakstein, K. Mladá, E. Fárková, M. Kolenič, F. Španiel, D. Manková, J. Korčáková, P. Winkler, and T. Hajek (2020). “Cross-sectional and within-subject seasonality and regularity of hospitalizations: A population study in mood disorders and schizophrenia”. In: *Bipolar Disorders* 902, bdi.12884. DOI: [10.1111/bdi.12884](https://doi.org/10.1111/bdi.12884), *IF(2021)=6.7*
- E. Bakštein, T. Sieger, J. Wild, D. Novák, J. Schneider, P. Vostatek, D. Uργοšík, and R. Jech (2017). “Methods for automatic detection of artifacts in microelectrode recordings”. In: *Journal of Neuroscience Methods* 290, pp. 39–51. DOI: <https://doi.org/10.1016/j.jneumeth.2017.07.012>, *IF(2016)=2.6*
- 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. Španiel, 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*