

# Mark Antony Gorenstein

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Borwell 564 East  
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## Research Interests

Cognitive neuroscience, neuromodulation, cortical oscillations, predictive coding

## Education

2016                    COLUMBIA UNIVERSITY, New York, NY  
B.A. in Computer Science  
3.7 GPA, Philosophy concentration within major

2014-2015            ST. CATHERINE'S COLLEGE, Oxford, UK  
Computer Science-Philosophy  
Selective year-long exchange program

## Experience

July 2016-            EPILEPSY & COGNITION LAB, Lebanon, NH  
Research Assistant  
Restoring Active Memory Project  
PIs: Barbara Jobst (Dartmouth)  
    & Michael Kahana (University of Pennsylvania)

2014-2015            LAB FOR THE PHILOSOPHY & PSYCHOLOGY OF RATIONALITY & DECISION, Oxford, UK  
Research Assistant  
PI: Philipp Koralus

Summer 2015        YOSSARIAN, London, UK  
NLP Research & Development

2013-2014            OPEN SYLLABUS PROJECT, New York, NY  
Research Assistant

## Publications

2018                    Ezzyat Y, Wanda PA, Levy D, Kadel A, Aka A, Pedisich I, Sperling MR, Sharan AD, Lega BC, Burks A, Gross RE, Inman CS, Jobst BC, **Gorenstein MA**, Davis KA, Worrell GA, Kucewicz MT, Stein JM, Gorniak R, Das SR, Rizzuto DS, Kahana MJ, "Closed-loop stimulation of temporal cortex rescues functional networks and improves memory," *Nature Communications*, [doi: 10.1038/s41467-017-02753-0](https://doi.org/10.1038/s41467-017-02753-0).

Meisenhelter S, Testorf ME, **Gorenstein MA**, Hasulak N, Tcheng T, Aronson JP, Jobst BC, "Cognitive Tasks and Human Ambulatory ElectroCorticography using the NeuroPace RNS," *Submitted*.

## Conference Presentations

- 2017 **Gorenstein MA**, Jobst BC, et al., “Modulating interictal spiking through targeted electrical stimulation during a word list memory task,” *American Neurological Association*, San Diego, CA, USA. **Voted top abstract in category, awarded travel funding.**
- Gorenstein MA**, Jobst BC, et al., “Evaluating the effects of targeted electrical stimulation on interictal spiking across stimulation sites and parameters,” *Society for Neuroscience*, Washington, D.C., USA
- Song Y, **Gorenstein MA\***, Hartstein KC, Tse PU, Roberts DW, Hong J, Bujarski KA, Kobylarz EJ, Thadani VM, Thomas GP, Jobst BC, “A GUI-based platform for human brain functional mapping in epilepsy patients,” *Society for Neuroscience*, Washington, D.C., USA  
**(\* presenting author)**
- Gorenstein MA**, Jobst BC, et al., “Assessing the Cognitive Impact of Morphologically Distinct Interictal Spikes,” *American Epilepsy Society*, Washington, D.C., USA

## Talks

- Oct. 2017 “Modulating interictal spiking through targeted electrical stimulation during a word list memory task,” *American Neurological Association*, Advances in Electrical Stimulation for Treatment of Epilepsy & Comorbidities Symposium, San Diego, CA, USA.

## Teaching & Mentorship

- 2016– NEW HAMPSHIRE ACADEMY OF SCIENCE  
Mentor of submissions to the annual meeting of the American Junior Academy of Science
- 2012-2013 AMERICA READS (P.S. 76 AND P.S. 180)  
Volunteer literacy tutoring three days per week in Harlem

## Workshops

- Nov. 2017 ANIMAL CONSCIOUSNESS WORKSHOP, NYU, New York, NY
- Aug. 2017 ACTION UNDERSTANDING SUMMER WORKSHOP, Hanover, NH
- Apr. 2017 DARTMOUTH NEUROSCIENCE DAY, Hanover, NH
- Oct. 2016 CENTER FOR COGNITIVE NEUROSCIENCE RETREAT, Fairlee, VT
- Aug. 2016 PREDICTIVE CODING SUMMER WORKSHOP, Hanover, NH

## Awards

- \$ 5,000 Diamond Foundation research grant
- \$ 1,000 American Neurological Association travel award

## Skills

### COMPUTATIONAL METHODS

High dimensional data analysis: NumPy, pandas, scikit-learn, etc.

Experiment presentation: jsPsych, PsychoPy, Amazon MTurk

Data visualization: matplotlib, D3.js, Processing

Tools: L<sup>A</sup>T<sub>E</sub>X, Git/GitHub

### PROGRAMMING LANGUAGES

Python, C/C++, Java, MATLAB, JavaScript, HTML, CSS, SQL

### NATURAL LANGUAGES

Russian (Heritage Speaker)

French (Elementary Proficiency)

## References

BARBARA C. JOBST  
Professor of Neurology  
Director of Epilepsy Center  
Vice Chair of Neurology  
*Geisel School of Medicine*  
*Dartmouth-Hitchcock Medical Center*  
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SALVADOR MASCARENHAS  
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