

# 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 Programmer

## Publications

[IN REVISION]        Ezzayat 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*.

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

## Conference Abstracts

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

Referee 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

- \$1,000 travel award to American Neurological Association meeting
- Dean’s List (all but one semester)

## Skills

### COMPUTATIONAL METHODS

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

Experiment presentation: jsPsych, PsychoPy

Data visualization: matplotlib, D3.js, Processing

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

### 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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