

Leo Kozachkov

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CURRENT AFFILIATION *Laboratory for Computational Brain* April 2016 – Today
Department of Computer Science
Research Assistant
Research Advisor: Prof. Konstantinos Michmizos

RESEARCH INTERESTS Theoretical/computational neuroscience, computational cognitive science.

EDUCATION *Bachelor of Science, Physics* Sept 2012 – May 2016
Rutgers University, New Brunswick, NJ
 ◦ Minor in Mathematics, Senior Honors Thesis.

HONORS & AWARDS Paul Robeson Scholar, School of Arts and Sciences 2016
Dean's List 2013 – 2014 – 2015 – 2016
Bronze Medal, University Physics Competition 2014
Research Assistant Award, Aresty Research Center 2013 – 2014
 ◦ 29% acceptance rate.
Writers Foundation Award 2012
 ◦ For "excellence in creative writing."

PUBLICATIONS

Thesis **Kozachkov L.** "Time and Memory: The Effect of an Epigenetic Switch on a Circadian Oscillator." Rutgers University, 2016, New Brunswick, NJ.

Conference Shinbrot T, **Kozachkov L**, Siu T. "A nonlinear feedback model for granular and surface charging." Applied Physics Society Meeting, 2015, San Antonio, TX.

Working **Kozachkov L**, Feigelis K, Michmizos K. "The Role of Astrocytes in Rhythrogenesis: A Computational Modeling Study."

RESEARCH EXPERIENCE *Laboratory for Computational Brain* April 2016 – Today
Department of Computer Science
Research Assistant
Research Advisor: Prof. Konstantinos Michmizos
 ◦ Designing simulations to elucidate the role of low-frequency glial calcium waves in modulating large neural populations.
 ◦ Developed minimal, neurophysiologically plausible models of glia-neuron and glia-synapse interactions.

Sengupta Lab Sept 2015 – May 2016
Department of Physics and Astronomy
Senior Honors Thesis Student
Thesis Advisor: Prof. Anirvan Sengupta
◦ Modeled and analyzed the effects of epigenetic chromatin silencing on *Neurospora Crassa* circadian rhythm.

Computational Vision and Psychophysics Lab Sept 2015 – Feb 2016
Department of Psychology, Center for Cognitive Science
Research Assistant
Research Advisor: Prof. Melchi Michel
◦ Studied the effects of intrinsic position uncertainty on search times in object identification tasks for natural, cluttered images.

Shinbrot Lab Summer 2014
Department of Biomedical Engineering
Research Assistant
Research Advisor: Prof. Troy Shinbrot
◦ Developed an Ising-like model to simulate spontaneous tribocharging of similar materials. Research was presented at American Physical Society, 2015.

Laboratory of Vision Research Sept 2013 – May 2014
Rutgers Center for Cognitive Science
Aresty Research Assistant
Research Advisor: Prof. Thomas V. Pappathomas
◦ Studied the 3-D perception of faces and scenes. Research presented at the Aresty Undergraduate Research Symposium. Poster.

**TEACHING
EXPERIENCE**

Part-Time Lecturer Sept 2015 – Jan 2015
Department of Physics and Astronomy
Rutgers University
◦ General Physics 206 Lab. Received 4.86/5.00 review average (Department average: 4.28/5.00). Report.

**EXTRA-
CURRICULAR
ACTIVITIES**

Staff Writer 2013 – 2015
Applied Sentience
Rutgers University
◦ Published monthly articles on science, philosophy, mathematics, and literature.

Lifeguard 2012 – 2013 – 2014 – 2015
Candlewood Management Service Inc

Custodian Jan 2011 – June 2011
Raritan Valley YMCA East Brunswick, NJ