JINGYANG ZHOU

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ACADEMIC POSITIONS

Postdoctoral researcher **11/2019 -**

Center for Neural Science, NYU/ Howard Hughs Medical Institute
Supervisor: Eero Simoncelli

EDUCATION

Psychology department at New York University **09/2013 - 09/2019**

Candidate for Ph.D in Psychology (Cognition and Perception),
Advisor: Jonathan Winawer.
Research: Temporal and spatial neuronal processing, object recognition.
Methods: computational modeling, fMRI, Electrocorticography (ECoG), psychophysics.
Coursework: Signal processing (NYU engineering), image processing, sensory systems, statistics and psychophysics.

Mathematics and Economics department at New York University **09/2007 - 01/2012**

B.A. in Mathematics and Economics (theory, 2007–2012), *Magna cum laude*.
Advisor: Andrew Caplin.
Research: Microeconomic theories and behavioral economics.
Methods: axiomatic model building, behavioral experiments.
Coursework: Real analysis (undergraduate and graduate), topology (undergraduate and graduate), abstract algebra (undergraduate), numerical methods (graduate), probability (graduate), linear algebra (graduate), microeconomics theory (graduate).

GRANTS, FELLOWSHIPS, AND AWARDS

Vision Science Society (VSS) Student Travel Award ($500) **2018**
Ted Coons Graduate Student Travel Award ($1000) **2018-2019**
NYU Dean's Dissertation Fellowship ($27526) **2018-2019**
NYU center of imaging token grant ($5000) **2017**

for "*Conservation of crowding distance in human hV4.*" (Co-PIs: Jonathan Winawer and Dennis Pelli.)

Ted Coons Graduate Student Travel Award ($1000) **2016-2017**

ACNN (Advanced computational neuroscience network) workshop scholarship **2016**

NYU GSAS Dean's student travel grant ($500) **2016**

Henry M. MacCracken scholarship for doctoral study **2013-2018**

NYU Dean's Honors List **2007-2011**

NYU Dean's undergraduate research fund (DURF) ($900) **2011**

for "*a modeling and experimental study of working memory.*" (Advisor: Andrew Caplin)

NYU freshmen and sophomore training grant (FAST) ($1000) **2008**

for "*Modeling and simulating addictive behavior.*" (Advisor: Ennio Stacchetti)

Funding/awards to supervised student:

Silvia Choi, Hillary Ann Citrin Award for best Undergraduate Thesis. **2016**

for "*Temporal Integration and visual object recognition.*" Mentored with Jonathan Winawer.

Silvia Choi, Dean's undergraduate research fund (DURF) ($1000) **2015**

for "*Temporal Integration and visual object recognition.*" Mentored with Jonathan Winawer.

SCIENTIFIC PUBLICATIONS

Published/under review:

Zhou, J., Benson, N.C., Kay, K.N. and Winawer. J. *Systematic changes in temporal summation across human visual cortex.* Journal of Neuroscience 30 November 2017, 1724-17; https://doi.org/10.1523/JNEUROSCI.1724-17.2017

Zhou, J., Benson, N.C., Kay, K.N. and Winawer, J. *Predicting neuronal dynamics with a delayed gain control model.* PLOS computational biology. November 20th 2019. https://doi.org/10.1371/journal.pcbi.1007484

In preparation:

Zhou, J., Choi, S., and Winawer, J. *Temporal windows in psychophysical discrimination and in neural responses in human visual cortex.*

Zhou, J., Benson, N.C., Pelli, D., and Winawer, J. *Conservation of crowding distance in human hV4.*

CONFERENCE ABSTRACTS / PRESENTATIONS

Conference Talks:

Burchell, A., Benson, N.C., **Zhou, J**., Winawer J., and Pelli D.G. *Using fMRI to link crowding to hV4.* Talk at VSS, 2019.

Zhou, J., Benson, N.C., Kay, K.N., and Winawer, J. *Dynamics of temporal summation in human visual cortex*. Talk at VSS symposium "Advances in temporal models of human visual cortex," May 2018.

Zhou, J., Benson, N.C.**,** Pelli, D., and Winawer, J. *Conservation of crowding distance in human hV4*. Talk presented at Optical Society of America Fall Vision Meeting, October 2017, Washington, DC.

Posters:

Groen IIA, **Zhou J.**, Piantoni G., Hermes D., Flinker A., Devinsky O., Doyle W., Ramsey N., Petridou N., Winawer J. *The temporal dynamics of neuronal responses in human visual cortex*. OHBM (Organization for Human Brain Mapping) 2019.

Groen IIA, **Zhou J**., Hermes D, Kay KN, and Winawer J. *Simulation and recovery of broadband field potentials.* SFN 2018.

Zhou, J., Benson, N.C.**,** Pelli, D., and Winawer, J. *Conservation of crowding distance in human hV4*. Poster presented at Vision Science Society Annual Meeting, May 2018.

Schellekens, W., **Zhou, J.,** Siero, J., Benson, N., Groen, I., Piantoni, G., Devinsky, O., Petridou, N., Ramsey. NF, Winawer, J. *Extending Population Receptive fields to new domains.* April 2018. The 4th Annual BRAIN Initiative Investigators Meeting, NIH.

Kay, K.N., Winawer, J., **Zhou, J.**, Sertel, M., Yoshor, D. and Beauchamp, M. *The dynamics of top-down modulation in human visual cortex*. Society for Neuroscience meeting, 2017, Washington DC.

Zhou, J., Choi, S., and Winawer, J. *Temporal windows in psychophysical discrimination and in neural responses in human visual cortex.* Poster presented at Vision Science Society Annual Meeting, May 2017.

Choi, S., **Zhou, J.**, and Winawer, J. *Temporal integration and visual object recognition*. Undergraduate research conference at NYU, May 2016.

Zhou, J., Benson, N.C., Kay, K.N., and Winawer, J. *Temporal summation and Adaptation in Human Visual Cortex.* Poster presented at Vision Science Society Annual Meeting, May 2016.

GENERAL PUBLICATIONS

Zhou, J. *Geometry and How We See the World — a book review on Amir Alexander's "Proof! How the World Became Geometrical."* The Cooper Square Review, April 2020. http://coopersquarereview.org/review/geometry-and-how-we-see-the-world/

TEACHING EXPERIENCE

Instructor, undergraduate *Perception* at NYU — Summer 2017
Teaching assistant, undergraduate *Perception* at NYU — Fall 2016
Grader, undergraduate *Calculus I— III* and *linear algebra* at NYU — 2008 - 2011

TRAINING

Cold Spring Harbor Computational Neuroscience: Vision — Summer 2018
Science Communication Workshop (hosted by Stephen Hall), NYU — Spring 2016

PROFESSIONAL ACTIVITIES

Organizing Vision Journal Club at NYU (link: *Vision Journal Club*). — 2016 - present

PROFESSIONAL ORGANIZATIONS

Vision Science Society
Society for Neuroscience