

# Stanford

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## Daniel Yamins

Assistant Professor of Psychology and of Computer Science

### Bio

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#### ACADEMIC APPOINTMENTS

- Assistant Professor, Psychology
- Assistant Professor, Computer Science
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

#### PROGRAM AFFILIATIONS

- Symbolic Systems Program

#### PROFESSIONAL EDUCATION

- Ph.D., Harvard University , Applied Mathematics (2008)

#### LINKS

- NeuroAILab: <http://neuroailab.stanford.edu/>

### Research & Scholarship

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#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our lab's research lies at intersection of neuroscience, artificial intelligence, psychology and large-scale data analysis. It is founded on two mutually reinforcing hypotheses:

H1. By studying how the brain solves computational challenges, we can learn to build better artificial intelligence algorithms.

H2. Through improving artificial intelligence algorithms, we'll discover better models of how the brain works.

We investigate these hypotheses using techniques from computational modeling and artificial intelligence, high-throughput neurophysiology, functional brain imaging, behavioral psychophysics, and large-scale data analysis.

### Teaching

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#### COURSES

2019-20

- Advanced Statistical Modeling: PSYCH 253 (Spr)
- Large-Scale Neural Network Modeling for Neuroscience: CS 375, PSYCH 249 (Aut)
- NeuroTech Training Seminar: NSUR 239, STATS 242 (Win)
- Theoretical Neuroscience: APPPHYS 293, PSYCH 242 (Spr)

#### **2018-19**

- High-Dimensional Methods for Behavioral and Neural Data: PSYCH 253 (Spr)
- High-level Vision: From Neurons to Deep Neural Networks: CS 431, PSYCH 250 (Spr)
- Large-Scale Neural Network Modeling for Neuroscience: CS 375, PSYCH 249 (Aut)
- Theoretical Neuroscience: APPPHYS 293, PSYCH 242 (Spr)

#### **2017-18**

- High-Dimensional Methods for Behavioral and Neural Data: PSYCH 253 (Spr)
- Large-Scale Neural Network Modeling for Neuroscience: CS 375, PSYCH 249 (Aut)
- Theoretical Neuroscience: APPPHYS 293, PSYCH 242 (Spr)

#### **2016-17**

- High-level Vision: From Neurons to Deep Neural Networks: PSYCH 250 (Spr)
- High-level Vision: From Neurons to Deep Neural Networks: PSYCH 250A (Spr)

### **STANFORD ADVISEES**

#### **Doctoral Dissertation Reader (AC)**

Katherine Hermann, Akshay Jagadeesh, Mona Rosenke, tyler bonnen

#### **Postdoctoral Faculty Sponsor**

Daniel Bear, Jinyao Yan

#### **Doctoral Dissertation Advisor (AC)**

Kevin Feigelis, Michael Lingelbach, Eshed Margalit, Eli Wang, Chengxu Zhuang

#### **Master's Program Advisor**

Eric Chan, Anirudh Jain, Nikki Nikolenko, Julie Wang, Javen Xu, David Zhou

#### **Doctoral Dissertation Co-Advisor (AC)**

Josh Melander, Damian Mrowca, Aran Nayebi

#### **Postdoctoral Research Mentor**

Daniel Bear, Jinyao Yan