



Assistant Professor Michael Beyeler and his [Bionic Vision Lab](#) at the University of California, Santa Barbara (UCSB) invite applications for a fully funded postdoctoral position at the intersection of computational neuroscience and machine learning.

Funded by the [NIH BRAIN Initiative](#), the goal of this project is to determine how the mouse brain extracts relevant visual features from the rich, dynamic visual input that typifies active exploration, and to investigate how the neural representations of these features can support visual navigation.

Under the guidance of Michael Beyeler, and in consultation with Bing Brunton (University of Washington), the role of the candidate is to perform data-driven statistical analyses and develop (deep) predictive models of brain activity based on visual input and several behavioral variables. The data includes one-of-a-kind measures of neural activity in mice navigating through real-world and virtual environments, collected using 2-photon imaging and electrophysiology by our collaborators Spencer Smith (UCSB), Michael Goard (UCSB), and Cris Niell (University of Oregon). This is an opportunity to work on an impactful real-world problem within a highly interdisciplinary and collaborative environment.

The successful candidate should have a strong quantitative background with a PhD in computer science, computational neuroscience, cognitive sciences, statistics, or a closely related field. To work effectively in this highly collaborative environment, superior communication, language, and writing skills are required. Expertise in programming and statistical analysis is required as well; previous background in vision, neuroscience or deep learning would be highly beneficial.

Candidates should send their CV, 1-2 page research statement, expected date of availability, and contact information for 2-3 references to Michael Beyeler (mbeyeler@ucsb.edu).

Further information:

- Position Title: Postdoctoral Fellow
- Job Duration: 2 years, full-time
- Start Date: asap / negotiable
- Required Travel: 0-10% (possibility of interning with our collaborators)



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