

Postdoctoral Scholar - The Institute for Neural Computation (INC)

Job #JPF03263

- INSTITUTE NEURAL COMPUTATION / Research / UC San Diego

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APPLICATION WINDOW

Open date: July 19th, 2022

Next review date: Tuesday, Jul 26, 2022 at 11:59pm (Pacific Time)

Apply by this date to ensure full consideration by the committee.

Final date: Wednesday, Jul 19, 2023 at 11:59pm (Pacific Time)

Applications will continue to be accepted until this date, but those received after the review date will only be considered if the position has not yet been filled.

POSITION DESCRIPTION

Drs. Scott Makeig and Arnaud Delorme of the Swartz Center for Computational Neuroscience (SCCN), at UC San Diego, are seeking a postdoctoral researcher to work on a potentially three-year compute-intensive neuroimaging project between SCCN (sccn.ucsd.edu) and the Child-Mind Institute of New York (childmind.org). This Healthy Brain Network (HBN) project (healthybrainnetwork.org) is collecting MR, eye tracking, and high-density EEG data from up to 10,000 children as they perform cognitive tasks and watch movie/animations. This collaboration, with Dr. Michael Milham (CMI/HBN) and colleagues, seeks to (1) develop a library of terms for the Hierarchical Event Descriptor system (HED-3G) (hedtags.org) and open-source tools for annotating events in movies to operate both standalone and in connection with our EEGLAB signal processing environment (sccn.ucsd.edu/eeglab) running on Matlab. (2) After annotating the HBN short films, the HBM data will be exported to OpenNeuro (openneuro.org) under BIDS standards (bids.neuroimaging.io), and will be made available via the forthcoming NEMAR data portal (nemar.org) for processing on the XSEDE high-performance computer network via the Neuroscience Gateway (NSG, nsgportal.org). The HBN M/EEG and behavioral/eye tracking data will be analyzed at the source and source network levels (Akalin Acar & Makeig, 2021) using advanced applications of Independent Component Analysis (Makeig et al., 1996; Delorme et al., 2012), Bayesian source and network clustering using SCALE-optimized forward head models (Akalin Acar et al., 2016, 2020). Tools and pipelines developed in the project will be made available in EEGLAB and through NSG. Our neuroscientific goal is to model the development of cortical EEG source dynamics and associated eye gaze patterns during viewing of 'moving pictures', and to model and explore individual differences in these processes.

The Office of Research Affairs and INC at UC San Diego is committed to academic excellence and diversity.

The University of California employs about 5,963 postdoctoral scholars (approx. 1,200 at UCSD) who contribute to the academic community by enhancing the research and education programs of the university. The postdoctoral experience emphasizes scholarship and continued research training. UC's postdoctoral scholars bring expertise and creativity that enrich the research environment for all members of the UC community, including graduate and undergraduate students. Appointment durations vary depending on the length of the research project and availability of funding. Total duration of an individual's postdoctoral service may not exceed five years, including postdoctoral service at other institutions. The International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) is the exclusive representative of the postdoctoral scholars.

Applicants should submit their detailed statement of experience and specific qualifications related to this position with their application.

Review of applications will commence on July 12, 2022 and will continue until a qualified candidate is selected. Salary is commensurate with qualifications and based on published University of California pay scales.

QUALIFICATIONS

Basic qualifications (required at time of application)

Doctorate degree or its equivalent in fields related to Computational or Cognitive Neuroscience or Biomedical Engineering. Appointment is dependent on academic experience, scholarly achievements, skills and knowledge and needs of the project. Candidates must be able to work remotely as needed, but must be, or be able to be in residence in the United States.

Preferred qualifications

Postdoctoral or equivalent experience, and commitment to mentoring and research training service to build equitable and diverse scholarly environment. The successful applicant will have a strong background in signal processing and computer science, and an interest in contributing to cognitive neuroscience.

APPLICATION REQUIREMENTS

Document requirements

- Curriculum Vitae - Your most recently updated C.V.

- Cover Letter
- Statement of Research
- Statement of Teaching (Optional)
- Statement of Contributions to Diversity - Applicants should summarize their past or potential contributions to diversity. See our [Faculty Equity](#) site for more information.
- Misc / Additional (Optional)

Reference requirements

- 3 required (contact information only)

None

Apply link: <https://apol-recruit.ucsd.edu/JPF03263>

Help contact: sschumacher@ucsd.edu

CAMPUS INFORMATION

The University of California, San Diego is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, covered veteran status, or other protected categories covered by the UC nondiscrimination policy.

As a condition of employment, you will be required to comply with the University of California [SARS-CoV-2 \(COVID-19\) Vaccination Program Policy](#). All Covered Individuals under the policy must provide proof of Full Vaccination or, if applicable, submit a request for Exception (based on Medical Exemption, Disability, and/or Religious Objection) or Deferral (based on pregnancy) no later than the applicable deadline. Please refer to Appendix F, Section II.C. of the policy for the deadlines applicable to new University of California employees. (Capitalized terms in this paragraph are defined in the policy.) Federal, state, or local public health directives may impose additional requirements.

The University of California prohibits [smoking and tobacco](#) use at all University controlled properties.

The UC San Diego Annual Security & Fire Safety Report is available online at: <https://www.police.ucsd.edu/docs/annualclery.pdf>. This report provides crime and fire statistics, as well as institutional policy statement & procedures. Contact the UC San Diego Police Department at (858) 534-4361 if you want to obtain paper copies of this report.

JOB LOCATION

La Jolla, CA