

Dynamic Memory Lab Junior Specialist

UC Davis Junior Specialist Recruitment

Apply via

For full consideration, apply by 15 days after posting

DESCRIPTION - The UC Davis Dynamic Memory Lab (DML) works to understand the neural basis of human memory in healthy individuals, and to understand these mechanisms go awry in patients with memory disorders. We are seeking a bright, motivated, organized, and resourceful individual to join our research team at the UC Davis Center for Neuroscience. Responsibilities will focus on research (e.g., Experimental Design, Data Collection, and Analysis; 80% time), and lab administration in collaboration with the lab manager (e.g., management of human subjects protocols, scheduling of research assistants, and assistance with lab events such as talks or conferences; 20% time).

We particularly seek applicants with computing skills (e.g., experience with MATLAB, Python or other programming languages, as well as stats programs) and interests in memory and cognitive neuroscience. Ideally the candidate will have one year of research experience, as well as strong organizational skills, interpersonal skills, and self-motivation. Previous research assistants from our lab have continued on to top psychology and neuroscience PhD programs.

DEGREE REQUIREMENT - Bachelor's Degree in psychology, psychobiology, neuroscience or a related field.

RESEARCH - The incumbent will focus on the organization and execution of fMRI, EEG, and behavioral research projects, including programming of tasks, data collection analysis, and publication of the results. Many planned research projects will build on prior work in the lab, or will take existing paradigms from the general population to various patient populations.

The incumbent will adapt existing experimental paradigms as well as program new tasks using a variety of programming languages, including MATLAB and Python. Experience with these platforms is preferable, but a clear indication of the ability to learn new programs can be substituted for this requirement. The incumbent will also be responsible for managing data collection of these studies, including data collection, training and mentoring undergraduate volunteers, and the input of data into secure databases.

The incumbent may have the opportunity to creatively contribute to the research projects by proposing alternative analysis strategies, generate novel projects with existing data and review literature for manuscript preparation. The incumbent will be actively and significantly involved in publishable research activities, including reviewing journal articles and engaging in discussions on research and the interpretation of research results with PI and others in the lab.

The incumbent will spend a marginal amount of time assisting the current lab manager with administrative tasks, including the maintenance of IRB protocols, the training of undergraduate volunteers, and the execution of lab events such as the hosting of outside speakers.

15% Experiment Design and Programming

- Use prior knowledge of experimental design and programming methods to develop new behavioral, fMRI, and EEG experiments, in collaboration with the Principal Investigator and lab postdocs and graduate students.

60% Data Collection and Analysis

- Complete training to assist with magnetic resonance imaging (MRI) studies and to operate MRI scanners at the UC Davis Imaging Research Center.
- Complete training for human subjects research and obtain informed consent from research participants.
- Work with postdoctoral researchers and graduate students to collect and analyze pilot data in order to determine the effectiveness of various experiments.

- Conduct behavioral assessments with research participants including computerized and paper-and-pencil tests of multiple aspects of cognitive functioning.
- Train in participant preparation and data collection for scalp electroencephalography (EEG) studies and for intracranial EEG studies performed at UC Davis Medical Center.
- Collect data for fMRI and EEG experiments, in collaboration with the Principal Investigator, postdoctoral researchers, and graduate students.
- Analyze results from behavioral, EEG, and fMRI studies.
- Coordinate research collaborations with faculty at UC Davis (Psychiatry, Neurology, and Neurosurgery), and with collaborating scientists at other institutions (UC Berkeley, NYU, Harvard, Princeton, Washington University, and Wright-Patterson Air Force Base).
- Maintain databases of all study data, including demographic, symptom, and cognitive data.
- Mentor undergraduate research assistants
- Maintain organized records for all participants in locked filing cabinets

PROFESSIONAL COMPETENCE - The ideal candidate will have strong interpersonal, communication, and decision-making skills, as well as the ability to work independently, and as part of a team. The incumbent may have the opportunity to submit data for presentation at relevant conferences, such as Society for Neuroscience (if funding is available).

5% Professional Competence

- Actively participate in weekly lab meetings, journal club presentations, presentations from outside speakers, and weekly workshops to help incumbents develop their career goals.
- Participate in appropriate professional/technical societies or groups and/or review research proposals, journal manuscripts, and publications related to area of expertise.

UNIVERSITY SERVICE - The incumbent will mentor undergraduate student assistants in the lab.

20% Service

- Provide mentorship to undergraduate research assistants
- Incumbent will participate in and help organize a variety of community outreach activities at the Center for Neuroscience
- Maintain accurate enrollment counts
- Calculate quarterly enrollment counts for submission to funding sources
- Ensure lab volunteers are trained on appropriate lab procedures
- Assist with daily lab maintenance

TERM OF APPOINTMENT - One year, with an additional year available based on performance and needs of the research project. Appointments may be made up to 100%.

SALARY RANGE - \$38,112 - \$40,656 [100% annual], commensurate with qualifications and experience.

STEP - Step 1 or Step 2, commensurate with qualifications and experience.

LOCATION UC Davis Center for Neuroscience, 1544 Newton Court, Davis CA 95618

Applicants can apply at: <https://recruit.ucdavis.edu/apply/JPF02141>