In this example, Sydney is replying to the following job posting for a research assistant.

"Dr. Carton's research focuses on how neural circuitry affects perception, cognition, and behavior, which plays an important role in understanding the mechanistic basis of neurological disorders. The research centers on the study of neural circuit organization and function. Undergraduate research assistants are needed to complete work including brain sectioning and immunostaining, brain mapping, slice imaging, and data analysis. After training, research assistants are expected to conduct independent projects that require them to collect and analyze data, summarize it into scientific writing, and present the data to the team. In the past, some research assistants have been included as co-authors on Dr. Carton's formal publications."

Here's an example of an excellent cover letter for an undergraduate research assistant.

Subject: Research Assistant Application for Sydney Darnay

Sydney Darnay 500 Tellson's Way Palm Desert, CA 12345 sydney.darnay@ucps.edu (555) 433-2211

February 10, 2021

Dr. Alexander Carton
Professor of Neurobiology, University of California - Palm Springs
1000 Greek Street
Palm Springs, CA 12345
alexander.carton@ucps.edu

I am excited to submit my application to be considered for the research assistant position on your Neuroscience Research team. As a Neurobiology major, I have gained the knowledge and experience necessary to contribute to your research on neural circuit organization and function. My skills, combined with a fervent interest in your research on the mechanistic basis of neurological disorders, make me an excellent fit for this role.

In my Neurobiology Lab, I sectioned the brain tissues of a rabbit and a sheep, earning a perfect score for following the correct protocol. For an Advanced Neurobiology project, I used EEG equipment to map the brain activity of two classmates while they completed memory tests. We analyzed the resulting data to compare their short term and working memory abilities. I took the initiative to gain more experience analyzing data by using PyMVPA software for neural decoding with the guidance of my faculty mentor.

Last year I discovered my skills in scientific writing. My professor selected my piece on molecular genetics to use as an example for future students. I have continued improving my skills by meeting regularly with a tutor at the Writing Center and am confident that I would be an excellent co-author in one of your formal publications.

Prior to freshman year, I shadowed a neurologist specializing in work with Alzheimer's patients. Observing her work gave me a unique perspective of neurological disorders, as well as a passion for finding cures. I have further developed that passion by volunteering as a learning aide at a dementia care facility, where I observe and record results of cognitive tests. I was captivated by your recent research on the relationship between neural circuit architecture and working memory, as well as the positive implications it holds for patients suffering from dementia. I hope for the opportunity to contribute to your future findings on cognition and memory.

I plan to devote my career—as you have—

the group, and the summer following my freshman year, through the Y program, I began research in Dr.

B's cell biology laboratory in the X University Medical Center. Since then, I have dedicated several independent study cr7 (e)-le106 Tw 11.04 0-59 (u)-0.8d)-0.7 (70.56ifacev)88er0.7 Tw 0 04 Tc 0.028 (e)9 (u)-0.823|I)-0.7 I.89

alignment, x-ray and UV spectrometry, and liquid sample preparation. I also had the unique opportunity to prepare an optical arrangement for a project at the Y Linear Accelerator and to observe both the installation and data collection revolving around this setup. My summer position as an organic chemistry teaching assistant provided experience in organic syntheses and techniques. Biology courses introduced such techniques as DNA manipulation and extraction, cross-