Janhavi Pillai

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EDUCATION

University of California, Berkeley **May 2022**
B.A. Cognitive Science (Honors) and minor in Data Science *Berkeley, CA*

- **GPA:** 3.6/4.0
- **Relevant Coursework:** Principles of Data Science, Structure of Computer Programs, Data Structures, Computational Models of Cognition, Cognitive Neuroscience, Linguistics
- **University Groups:** CITRIS Foundry, Neurotechnology @ Berkeley, Cognitive Science Students Association

WORK EXPERIENCE

UCSF Memory and Aging Center **September 2022 – present**
Neuroimaging Data Research Associate *San Francisco, CA*

- Developing and maintaining multimodal neuroimaging (structural, functional, and diffusion MRI) analysis pipelines and diagnostic tools with Python, R, Linux that aid in the study of understanding the neural underpinnings of implicated speech, language, and memory in neurological conditions such as Primary Progressive Aphasia and Dyslexia.
- Led the transition of the UCSF Dyslexia Center database to the standardized "Brain Imaging Data Structure" which facilitated efficient data sharing and inclusive collaborations across institutions, alongside significantly improving data organization and accessibility.
- Developing an interactive browser tool for statistical visualization and machine learning diagnostics in neuroimaging data that is actively used by neurologists, neuropsychologists, and pathologists during UCSF Dyslexia Center patient conferences.
- Contributing to interpreting data, creating figures, and preparing write-ups obtained from analyses alongside principal investigators for conference posters, abstracts, and journals.

UCSF Kheirbek Lab **April 2020 – May 2022**
Neuroscience Research Intern *San Francisco, CA*

- Designed reproducible and efficient Python functions within in-house preprocessing pipelines and analyzed calcium neuronal datasets exhibited by fiber photometry imaging fluorescent signals to determine contribution to emotion disruptive disorders
- Assisted in research experiments involving mice that used the foot shock and tail restraint methods to delineate brain circuits that are activated in response to stressful stimuli
- Completed an undergraduate Cognitive Science Honors Thesis project: "*Hippocampal and Paraventricular Activation in Anxiety Behaviors*", supervised by Professor David Presti PhD and Victoria Turner, UCSF

CITRIS Foundry **June 2019 – December 2021**
Student Associate – Design and Media *Berkeley, CA*

- Supported the growth of 30+ emerging university venture, social enterprise, and tech transfer innovators and startup teams with marketing assets by assisting logo design, media samples, and website creation.

RESEARCH

UC Berkeley Undergraduate Honors Thesis

1. **Pillai, J.**, Turner, V.S., Presti, D., Kheirbek, M. (2022). Activation of Ventral Hippocampus and Paraventricular Nucleus of the Hypothalamus during Anxiety-Related Behaviors. *University of California, Berkeley*.

Conference Posters

1. Grebe, L., Morin, BT., **Pillai, J**., Baquirin, DPG., Ratnasiri, B.M., Bogley, R., Ezzes, Z., Wauters, L., Mandelli, ML., Miller, Z., Gorno Tempini, ML., Galletta, E., Goral, M. Vonk, J.M.J. (2023). Cognitive Reserve in Primary Progressive Aphasia. *The American Speech-Language-Hearing Association.*
2. Kersey, M., **Pillai, J**., Bogley, R., Shabash, M., Martin-Moreno, DV., Carpenter, E., Tee, BL., DeLeon, J., Miller, Z., Watson, CP., Mandelli, ML., Pedemonte, B., Gorno Tempini, ML., Chagas, PP. (2024). Characterizing Neural Signatures of Dyslexia and Co-occurring Math Learning Difficulties (MLD) with Machine Learning. *Cognitive Neuroscience Society.*
3. Mandelli, ML., Cobigo, Y., Leichter, D., **Pillai, J**., Ulugut, H., Ezzes, Z., Baquirin, DPG., Bogley, R., Giloli, A., Knudtson, MV., Tee, BL., Rosen, HJ., Miller, BL., Sturm, V., Rankin, KP., De Leon, J., Miller, Z., Gorno-Tempini, ML. (2024). Pattern on Long-Distance Neural Alterations in Predominant Left versus Right Anterior Temporal Lobe Atrophy. *Organization for Human Brain Mapping*.

PROJECTS & PRESENTATIONS

Projects

1. UCSFNeuroviz
   - An interactive visualization browser that is used to generate and display structural MRI metrics, diffusion MRI tractography, task-based functional MRI, and perform group comparisons and machine learning predictions amongst patients with dyslexia, dyscalculia, ADHD, and more.
2. Machine Learning Predictions of Dyslexia Phenotypes with Resting State Functional MRI
3. UCSF Dyslexia Center MRI Data Preprocessing Pipeline

Presentations

1. NeuroHackademy | University of Washington eScience Institute
   - Attended hands-on lectures and presented a final hackathon project alongside collaborators from various universities.

LEADERSHIP & COMMUNITY

1. BrainHack Global Organization Committee
   - Organized the 2023 Bay Area BrainHack Global, hosting multidisciplinary collaborations from around the world to promote the bridge between data science and neuroscience research.
2. UCSF ALBA Lab JEDI Team
   - Actively working as a core member of the lab's first JEDI (Justice, Equity, Diversity, Inclusion) team.
   - Fostering an equitable research environment through hosting internal antiracist journal clubs and planning community events to garner diverse research participants.