DEV LAXMAN SUBRAMANIAN

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Education

Cornell University, Ithaca, NY   **August 2017 - Present**

- Ph.D. in Psychology (Neuroscience Specialization)
- Sage Fellow (20% of doctoral students at Cornell)
- Relevant coursework: Computational methods in Neuroscience, EEG analysis seminar, short course in Python

The University of Texas at Dallas, Dallas, TX   **August 2015 — May 2017**

- M.S. in Applied Cognition and Neuroscience
- Computational modeling specialization, GPA: 3.93/4.0
- Selden Leavell Scholarship awarded.

Maulana Azad National Institute of Technology, Bhopal, India   **July 2011 — May 2015**

- Bachelor of Technology in Electronics and Comm. Engineering
- Relevant coursework: Neural networks

Research Experience

Cornell University, Ithaca, NY   **August 2017 - Present**

Sage Ph.D. fellow, Behavioral and Evolutionary Neuroscience Area, Dept. of Psychology, with Dr. David M. Smith

Analyzing rodent electrophysiological recordings to understand the neural basis of Episodic memory.

- Discovered 'Time cells' in the Retrosplenial cortex and currently analyzing the properties of temporal encoding in the Retrosplenial cortex.
- Applied various analytical methods to compare the similarities and differences in the spatial and contextual memory encoding properties in the Hippocampus and the Retrosplenial Cortex.
- Decoded neural activity using Machine/deep learning approaches.
- Experience working with several different behavioral datasets collected in our lab.

The University of Texas at Dallas, Dallas, TX   **September 2015 - May 2017**

Graduate research assistant in Aging and Memory research lab of Dr. Lucien T. Thompson

Studied the effects of D-Cycloserine on the Hippocampal Place cells in rats.

Skills and Techniques

Technical Skills

- **Programming languages and packages**: Python, MATLAB, R, Illustrator, Spikesort3D, SPSS, C, HTML, CSS
- Electrophysiological data analysis
- Machine/deep learning
- Data visualization using Seaborn, Matplotlib packages in Python
- Spike sorting to separate neural spiking activity from noise

Language Skills

• Fluent in English, Hindi, and Tamil

Computational Neuroscience summer schools

Neuromatch Academy, online course, interactive track   **July 2020 & July 2023**

3-week online summer school

Computational Neuroscience (2020) & Deep learning (2023)

Methods in Neuroscience at Dartmouth, Dartmouth College, Hanover, NH   **August 2019**

2-week summer school on Computational Neuroscience

Data science & Machine/Deep learning online courses

Advanced learning algorithms, Coursera - Certificate   **October 2022**

Supervised Machine learning: Regression and Classification, Coursera - Certificate   **August 2022**

Scientific computing and Python for Data science, Worldquant University - Certificate   **September 2019**

Publications

Subramanian D.L. & Smith D.M. (2023) **Time cells in the retrosplenial cortex.** *Society for Neuroscience (SFN) abstract (manuscript, in prep)*

Subramanian D.L., He Z., Miller A.M., Smith D.M. (2021) **A comparison of spatial and contextual coding in the hippocampus and retrosplenial cortex.** *Society for Neuroscience (SFN) abstract (manuscript, under review)*

Smith D. M., Yang Y. Y., **Subramanian D. L.**, Miller A. M. P., Bulkin D. A., & Law L. M. (2021) **The limbic memory circuit and the neural basis of contextual memory.** *Neurobiology of Learning and Memory, 187*

Teaching Experience

Teaching Assistant for 6 courses during my Ph.D. comprising of statistics, neuroscience, and psychology courses.

Professional Memberships

Society for Neuroscience (SFN) student member   **June 2018 – Present**

Extracurricular activities

Vice president of the Cricket team at Cornell   **July 2019 – Present**