Isaac Menchaca

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: @isaacmenchaca

Education

PhD Cognitive Sciences (current) — **University of California, Irvine**
M.S. Statistics (current) — **University of California, Irvine**
B.S. Bioengineering — **University of California, Riverside**

- Emphasis in Computational Bioengineering

Publications & Conferences

- Lee, J., Hussain S., Warnick, R., Vannucci, M., **Menchaca, I.**, Seitz, A.R., Hu, X., Peters M.A.K., Guindani, M. (under review, preprint). A Predictor-Informed Multi-Subject Bayesian Approach for Dynamic Functional Connectivity. arXiv preprint arXiv:2210.01281 (2022). Available at: `https://doi.org/10.48550/arXiv.2210.01281`.
- Hussain, S., **Menchaca, I.**, Alizadeh Shalchy, M., Yaghoubi, K.C., Langley, J., Seitz, A.R., Hu, X., & Peters, M.A.K. (under review, preprint). Locus coeruleus neuromelanin predicts ease of attaining and maintaining neural states of high attentiveness. bioRxiv (2022): 2022-03. Available at: `https://doi.org/10.1016/j.brainresbull.2023.110733`.
- Hussain, S., **Menchaca, I.**, Alizadeh Shalchy, M., Yaghoubi, K., Langley, J., Seitz, A., Peters, M.A.K., & Hu, X. [poster]. Locus coeruleus is associated with brain state switching. *International Society for Magnetic Resonance in Medicine annual meeting, May 2021. Available at: https://archive.ismrm.org/2021/3151.html.*

Experience

Graduate Student Researcher (UC Irvine) — **October 2021 - Present**

- *Human Neuroscience Laboratory — PI: Dr. Ramesh Srinivasan*

Research Fellow — **October 2021 - Present**

- *DEVCOM Army Research Laboratory — Branch Chief: Dr. Javier Garcia*

Automation Engineer, Software — **December 2020 - October 2021**

- *Curative Inc.*

Research Assistant (UC, Irvine) — **June 2019 - December 2020**

- *Cognitive and Neural Computation Lab — PI: Dr. Megan Peters*

Diagnostics Assistant (UC, Riverside) — **October 2015 - March 2020**

- *Citrus Clonal Protection Program — PI: Dr. Georgios Vidalakis*

Honors & Awards

Graduate Research Fellowship — **National Science Foundation**
Graduate Dean's Recruitment Fellowship — **University of California, Irvine**
Eugene Cota-Robles Fellowship — **University of California, Irvine**
Journeyman Fellowship — **Oak Ridge Associated Universities**

Technical Skills

- **Programming and Git Version-Control**: Python, JavaScript, R, C and *more*.
- **Inferential and Bayesian Statistics**
- **Machine Learning/ Deep Learning**: scikit-learn, pytorch
- **Behavioral Tasks**: psychoPy and custom JavaScript.
- **Signal and Image Processing**: EEG, Infrared Cameras.
- **Front-end and GUI Development**: Javascript, HTML, CSS, jQuery, eel.js
- **3D Custom Modeling and Environments**: Blender, three.js

Languages

- Spanish (Native)
- English