James Andrew Taylor

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EDUCATION

Bachelor of Science, Physics — May 2017
College of Charleston

EMPLOYMENT

Image Analyst — January 2020
Radiology Department at MUSC — - September 2024

- Performed data analysis including image segmentation, artifact correction, and time series modeling of clinical data
- Delivered group-wise statistical comparisons from raw MR and behavioral data
- Contributed to every part of published manuscripts as second and third author

Image Analyst — August 2017
Center of Biomedical Imaging at MUSC — - September 2019

- Used object oriented programming to generalize existing pipelines for ever-changing image sequences
- Determined and presented on validity of new tools; simulated noise and image artifacts to test limits
- Trained new researchers and led weekly technical lessons

TECHNICAL KNOWLEDGE

MATLAB • Python • Neuroscience • MR Imaging • Statistics
Peer Review Process • Grant Writing • Physics • Anatomy
SQL • Bash • Git • Linux • AWS

PUBLICATIONS AND PRESENTATIONS

Taylor J. A. Associations between WinSCAT performance and local pre- to postflight changes in brain structure. *NASA Human Research Program Investigator's Workshop*, 2024.

Tidwell J.B. and Taylor J.A. et al. Longitudinal changes in cerebral perfusion, perivascular space volume, and ventricular volume in a healthy cohort undergoing a spaceflight analog. *American Journal of Neuroradiology*, 2023.

Barisano G., Sepehrband F., Collins H.R., Jillings S., Jeurissen B., and Taylor J.A. et al. The effect of prolonged spaceflight on cerebrospinal fluid and perivascular spaces of astronauts and cosmonauts. *Proceedings of the National Academy of Sciences*, 2022.

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Rosenberg M.J., Coker M.A., and Taylor J.A. et al. Comparison of dural venous sinus volumes before and after flight in astronauts with and without spaceflight-associated neuro-ocular syndrome. *JAMA Network Open*, 2021.

Roberts D.R., Collins H.R., Lee J.K., and Taylor J.A. et al. Altered cerebral perfusion in response to chronic mild hypercapnia and head-down tilt bed rest as an analog for spaceflight. *Neuroradiology*, 2021.

Bryant L., McKinnon E.T., and Taylor J.A. et al. Fiber ball white matter modeling in focal epilepsy. *Human Brain Mapping*, 2021.

Rodriguez-Porcel F., Wilmskoetter J., and Taylor J.A. et al. The relationship between dorsal stream connections to the caudate and verbal fluency in Parkinson disease. *Brain Imaging and Behavior*, 2020.