Josef Affourtit

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Education

Ohio State University *Columbus, OH*

B.S. Physics *2015 - 2019*

Department of Physics

Publications

Diachek, E.*, Siegelman, M.*, Blank, I.*, **Affourtit, J.** & Fedorenko, E. (2020). The domain-general multiple demand (MD) network does not support core aspects of language comprehension: a large-scale fMRI investigation. Journal of Neuroscience.

Manuscripts

Chen, X.*, **Affourtit, J.***, Malik Moraleda, S., Kean, H., Jouravlev, O., Regev, T., Norman-Haignere, S., McDermott, J., & Fedorenko, E. (in prep.) The fronto-temporal language system does not support the processing of music.

Affourtit, J., Rakocevic, L., Tuckute, G., Mineroff, Z., Small, H., Kean, H., Jouravlev, O., Ayyash, D., Pritchett, B., Siegelman, M., Pongos, A., Hoeflin, C., & Fedorenko, E. (in prep.) 800LanA: A probabilistic atlas of the human language network based on 800+ individuals.

Affourtit, J., Small, H., Mineroff, Z. & Fedorenko, E. (in prep.) In defense of individual-level functional neural markers.

Affourtit, J., Rakocevic, L., Small, H., Mineroff, Z. & Fedorenko, E. (in prep.) Sex differences in the topography of the language network.

Mollica, F., Shain, C., **Affourtit, J.**, Kean, H., Siegelman, M. & Fedorenko, E. (in prep.) Another look at the constituent structure of sentences in the human brain.

Regev, T., **Affourtit, J.**, Chen, X., Bergen, L., Mahowald, K., & Fedorenko, E. (in prep.) Sensitivity of high-level language processing brain regions to phonological information.

Shain, C.*, Paunov, A.*, Chen, X., **Affourtit, J.** & Fedorenko, E. (in prep.) Language regions do not support Theory of Mind.

Schoessow, F.S., Workman, G., Vega, M.E., Harlow, C., **Affourtit, J.**, & Zhan, M. Autonomous aerial remote sensing platforms for monitoring of snow and ice at high altitudes. (In prep)

Affourtit, J., & Scott, N. Optimal Adversarial Pathway Estimation Using Remotely Sensed Spectral-Terrain Data: A Graphical Modeling Approach.

Research & Training Courses

Massachusetts Institute of Technology *Cambridge, MA*

Professional Certificate Program in Machine Learning & Artificial Intelligence *2019 - 2020*

Departments: CSAIL, IDSS, & LIDS

Research Experience

Massachusetts Institute of Technology *Cambridge, MA*

Research Associate *May 2019 - Present*

- Implementing ML techniques on MRI data using the McGovern Institute's cloud computing platform
- Implementing complex statistical analyses for various projects
- Created and currently maintaining evlab.mit.edu

Ohio State University *Columbus, OH*

Research Assistant *Sep 2018 - May 2019*

- Creating and testing new technology related to autonomous aerial vehicles in small startup evironment

Riverside Research *Dayton, OH*

Machine Learning Researcher *May 2018 - Aug 2018*

- Researching, evaluating, and implementating various ML techniques on HSI data

Industry Experience

Ohio Supercomputer Center *Columbus, OH*

Student Intern *Sep 2017 - May 2018*

- Assisting researchers with super computing tasks.

Crane Consumables *Monroe, OH*

Machinist *May 2014 - Aug 2017*

- Reparing/maintaining mechanical and electrical machines used in production

Medpace, Inc. *Cincinnati, OH*

Engineering Intern *Aug 2016 - Dec 2016*

- Creating and optimizing database using SQL for recruitment purposes

Honors & Awards

2019 **Sharpe Innovation Commons Seed Grant Award**, Ohio State University *Columbus, OH*

2015 **Continuing Education Scholarship**, Crane Consumables *Monroe, OH*

Skills

Programming languages Python, MATLAB, #C, BASH, C++, Node.js, HTML, CSS