

Josef Affourtit

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Education

Ohio State University

B.S. PHYSICS
Department of Physics

Columbus, OH

2019

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.

Presentations

Affourtit, J. & Scott, N. (2019). Optimal Adversarial Pathway Estimation Using Remotely Sensed Spectral-Terrain Data: A Graphical Modeling Approach. Poster Presentation presented at Military Operations Research Symposium, 87th Symposium.

Posters

Affourtit, J., Small, H., Mineroff, Z., Fedorenko, E. (2020). In defense of individual-level functional neural markers. Society for the Neurobiology of Language.

Chen, X.*, **Affourtit, J.***, Norman-Haignere, S., Jouravlev, O., Malik-Moraleda, S., Kean, H., Regev, T., McDermott, J., & Fedorenko, E. (2020). The fronto-temporal language system does not support the processing of music. Society for the Neurobiology of Language.

Regev, T., **Affourtit, J.**, Chen, X., Bergen, L., Mahowald, K., Fedorenko, E. (2020). Sensitivity of high-level language processing brain regions to phonological information. Society for the Neurobiology of Language.

Ozernov-Palchik, O. **Affourtit, J.**, Capella, J., Hogan, T., Gabrieli, J., Fedorenko, E. (2020). A developmental investigation of the language-selective brain network. Society for the Neurobiology of Language.

Mollica, F., Shain, C., **Affourtit, J.**, Kean, H., Siegelman, M. & Fedorenko, E. (2020). Another look at the constituent structure of sentences in the human brain. Society for the Neurobiology of Language.

Research Experience

Massachusetts Institute of Technology

RESEARCH ASSOCIATE

- Advisor: Evelina Fedorenko, PhD

Cambridge, MA

May 2019 - Present

Ohio State University

RESEARCH ASSISTANT

- Advisor: Bryan Mark, PhD

Columbus, OH

Sep 2018 - May 2019

Riverside Research

MACHINE LEARNING RESEARCHER

- Advisor: Nicholas Scott, PhD

Dayton, OH

May 2018 - Aug 2018

Ohio Supercomputer Center

STUDENT INTERN

- Advisor: Alan Chalker, PhD

Columbus, OH

Sep 2017 - May 2018

Industry Experience

Crane Consumables

MACHINIST

- Repairing/maintaining/operating mechanical and electrical machines used in factory production

Monroe, OH

May 2012 - Aug 2017

Medpace, Inc.

ENGINEERING INTERN

- Creating and optimizing database using SQL for clinical trial recruitment

Cincinnati, OH

Aug 2016 - Dec 2016

Certificates

Massachusetts Institute of Technology

PROFESSIONAL CERTIFICATE PROGRAM IN MACHINE LEARNING & ARTIFICIAL INTELLIGENCE

Departments: CSAIL, IDSS, & LIDS

Cambridge, MA

2020

Relevant Coursework

Ohio State University

MECHENG 3500: Engineering Thermal Sciences

PHYSICS 3470: Optics

PHYSICS 4700: Introductory Electronics for Scientists & Engineers

PHYSICS 5400H: Honors Intermediate Electricity & Magnetism

PHYSICS 5500: Quantum Mechanics

PHYSICS 5700: Advanced Physics Lab

CSE 2122: Data Structures in C++

CSE 2321: Foundations I: Discrete Structures

CSE 5052: Artificial Intelligence for non-majors

Massachusetts Institute of Technology

9.660: Computational Cognitive Science

9.59: Laboratory in Psycholinguistics (audit)

Honors & Awards

2020 **Spot Award**, Massachusetts Institute of Technology

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

2015 **Continuing Education Scholarship**, Crane Consumables

Cambridge, MA

Columbus, OH

Monroe, OH

Skills

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