**Alxandr Kane York**

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**EDUCATION**

**2019-2025 (expected)**

 **University of Michigan-Ann Arbor (UM-Ann Arbor)**

 Doctor of Philosophy in Neuroscience (in progress)

**2015-2019**

 **University of Central Arkansas (UCA)**

Bachelor of Arts in Psychology

**RESEARCH EXPERIENCE**

**University of Michigan-Ann Arbor Winter 2023-Present**

**Jonides Lab**

* Managing a research agenda of 4 concurrent projects, overseeing a team of 7 research assistants
* Applying eye tracking methods to study visual attention and cognitive control
* Employing experimental statistics and Bayesian modeling in R and Python to analyze behavioral and electromyography (EMG) data
* Designed and programmed 10+ experiments using Python and JavaScript with over 200 research participants to date

**University of Michigan-Ann Arbor Summer 2022-Winter 2023**

**Sutton Lab**

* Used whole-cell patch clamp electrophysiology to study changes in postsynaptic currents following molecular manipulations
* Utilized pHluorin, a genetically encoded optical read-out of vesicle release activity, to study pre-synaptic changes due to knockdown of the SNARE regulatory protein Tomosyn
* Applied molecular biological methods to image proteasome dynamics following drug applications

**University of Michigan-Ann Arbor Summer 2020-Spring 2022**

**Vanini Lab**

* Applied Designer Receptors Exclusively Activated by Designer Drugs (DREADDs) and electroencephalography (EEG) techniques to manipulate the activity of glutamatergic cells in the preoptic area
* Implemented circuit tracing experiments via anterograde and retrograde injections in the preoptic area
* Performed immunohistochemical staining to elucidate the molecular identities of projecting neurons from the preoptic area

**ACADEMIC PUBLICATIONS**

Mondino, A., **York, A. K**., Floran-Garduno, L., Hambrecht-Wiedbusch, V. S.; Li, D., Torterolo, P., Pal, D., Mashour, G., Vanini, G., (2023) Role of Preoptic Glutamatergic Neurons in Sleep Homeostasis. under review at *SLEEP*.

Mondino, A., Hambrecht-Wiedbusch, V., Li, D., **York, A. K.**, Pal, D., González, J., Torterolo, P., Mashour, G. A., Vanini, G. (2021). Glutamatergic neurons in the preoptic hypothalamus promote wakefulness, destabilize NREM sleep, suppress REM sleep, and regulate cortical dynamics. *The Journal of Neuroscience: The Official Journal of the Society for Neuroscience*, *41*(15), 3462–3478.

Clawson, B. C., Pickup, E. J., Ensing, A., Geneseo, L., Shaver, J., Gonzalez-Amoretti, J., Zhao, M., **York, A. K.**, Kuhn, F. R., Swift, K., Martinez, J. D., Wang, L., Jiang, S., & Aton, S. J. (2021). Causal role for sleep-dependent reactivation of learning-activated sensory ensembles for fear memory consolidation. *Nature Communications*, *12*(1), 1200.

Sobel, K. V., Puri, A. M., **York, A. K.** (2020). Visual search inverts the classic Stroop asymmetry. *Acta Psychologica*, 205, 103054

Lee, K. R., Sobel, K. V., **York, A. K.**, & Puri, A. M. (2018). Dissociating parallel and serial

processing of numerical value. *Journal of Numerical Cognition*, 4(2), 360-379.

**ACADEMIC PRESENTATIONS**

**York, A. K.** (2019, April). *Strength of Association in Spatial Stroop*. Poster presented at

the annual Southwestern Psychological Association conference, Albuquerque, NM.

**York, A. K.** (2018, November). *Stroop and Reverse Stroop Effects in Identification and*

*Localization Tasks*. Poster presented at the National Collegiate Honors Council

Annual Meeting, Boston, MA.

**York, A. K.** (2018, April). *Stroop and Reverse Stroop Effects in Identification and Localization Tasks*.

Poster presented at the annual meeting of the Southwestern Psychological Association, Houston, TX.

Skinner, B., **York, A. K.**, Padberg, J. (2017, November). *Organization of the retinofugal pathway in the*

*nine-banded armadillo (Dasypus novemcinctus).* Poster presented at the 47th annual meeting of the

Society for Neuroscience, Washington, D.C.

Skinner, B., **York, A. K.**, Padberg, J. (2017, October). *Organization of the retinofugal pathway in the nine*

*banded armadillo (Dasypus novemcinctus).* Poster presented at the Annual IDeA Network of

Biomedical Research Excellence Conference, Fayetteville, AR.

**York, A. K.** (2017, April). *Reverse Stroop Effect in Visual Search*. Poster presented at the annual meeting of

the Southwestern Psychological Association, San Antonio, TX.

**York, A. K.** (2017, March) *Taboo or Community? An Experience with Nudity*. Talk at Issues in the Public

Square conference, Conway, AR.

**PROFESSIONAL EXPERIENCE**

**miLEAD Consulting Spring 2022-Present**

**Consultant**

* Engaged in strategic consulting for tech and healthcare companies, focusing on go-to market strategies for their emerging products
* Synthesized data into actionable insights, demonstrating data-driven decision-making skills
* Delivered comprehensive market analysis, including segmentation and risk assessments
* Cultivated business acumen through hands-on experience, understanding market dynamics, and client interactions
* Successfully executed 2 consulting projects, leading to client satisfaction and their subsequent renewal of contracts with the company

**NON-ACADEMIC PUBLICATIONS**

**York, A. K.** (2022, January) *Dopamine and Serotonin: The (Not Just) Happy Chemicals.* Michigan Science Writers (<http://misciwriters.com/>)

**York, A. K.** (2021, August) *Depression: Physiology to Psychology is Rarely Simple.* Michigan Science Writers (<http://misciwriters.com/>)

**NON-ACADEMIC PRESENTATIONS**

**York, A. K.** (2021, January) *Sleep Networks*. U-M Museum of Natural History

**GRANTS**

**Student Undergraduate Research Fellowship Spring-Fall 2018**

**Funded by the Arkansas Department of Higher Education**

Awarded $4000 for the proposal, “The Stroop and reverse Stroop effects in various conditions.” from the Arkansas Department of Higher Education

**Undergraduate Research Grant Spring 2018**

**Funded by the Psi Chi International Honors Society**

Awarded $1,500 for the proposal, “Robustness of the reverse Stroop effect in localization tasks.”

**Travel Abroad Grant (TAG) Summer 2017**

**Funded by the Norbert O. Schedler Honors College**

Awarded $2000 to study Spanish in Costa Rica and volunteer at an orphanage for a total of five weeks

**Undergraduate Research Grant for Education (URGE) Fall 2017**

**Funded by the Norbert O. Schedler Honors College**

Awarded $365 to present research at the annual meeting of Society for Neuroscience

**Undergraduate Research Grant for Education (URGE) Spring 2017**

**Funded by the Norbert O. Schedler Honors College**

Awarded $630 to present research at the annual meeting of the Southwestern Psychological Association

**TEACHING**

**Graduate Teaching Assistant Winter 2021-Winter 2024**

Various Courses

* Distilled complex science topics into digestible content for 75+ students on a weekly basis
* Conducted evaluation of student assignments and exams, providing constructive feedback to optimize academic performance
* Actively sought out feedback from students to refine teaching to best suit the needs of the class
* Achieved above-median scores in course evaluations, consistently ranking at a high level compared to university-wide metric

**Pedagogical Assistant Fall 2018**

Core I: Search for the Self

* Co-taught a primary literature and group discussion-based course concerning various writers and thinkers engaging with the philosophical questions of self and identity
* Frequently graded and gave feedback on writing assignments
* Held appointments with students to provide additional help if needed

**SERVICE & OUTREACH**

**Board of Directors Member (Intercooperative Council of Ann Arbor) Spring 2021-Spring 2023**

Serving as a board representative in a multi-million dollar non-profit organization aimed at offering affordable housing to Ann Arbor university students

**Editor and Contributing Writer (MiSciWriters) Spring 2020-Present**

Current position as a writer and editor for a University of Michigan publication devoted to publishing pieces detailing the latest in science to a lay audience

**Scientific Communication Fellow (UM Natural History Museum) Spring 2020**

Underwent scientific communication training in preparation for presenting my dissertation research to a lay audience

**RELATE Participant Summer 2020**

Attended a series of scientific communication workshops. Produced a video detailing research I performed in the Aton lab intended for a lay audience

**Norbert O. Schedler Honors Mentor Fall 2016-Spring 2017**

Acted as a mentor to incoming Freshmen, helping them acclimate to the university