OMB No. 0925-0001 and 0925-0002 (Rev. 03/2020 Approved Through 02/28/2023)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Hannah Grace Varkey

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Research Assistant

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

| INSTITUTION AND LOCATION | DEGREE(if applicable) | Completion DateMM/YYYY | FIELD OF STUDY |
| --- | --- | --- | --- |
| Rutgers University, New Brunswick | B.A. | May 2021 | Cognitive Science |
| Bergen County EMS Training Center | EMT-B, NREMT | April 2022 | Emergency Medical Technician |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**A. Personal Statement**

**Learning about the mind, its capacities, and frameworks in understanding it as an undergraduate student had opened my own mind to the world of cognitive science. During my undergrad at Rutgers, I assisted with research at the Sensory-Motor Integration Lab, led by Professor Elizabeth Torres. Here, I’ve learned and I’m continuing to learn about figuring out how the nervous system and mind works through sensation and movement— both integrated and processed to form an embodied cognition. Currently, I collaborate with the Infant Development lab, headed by Dr. Ha Phan, from the Institute of Basic Research (IBR) in Developmental Disabilities, Staten Island where I assist with infant neurobehavioral test visits and process videos from a database of hundreds of baby videos for kinematics analyses. My research focus has been infant development, particularly movement patterns such as general movements in infants and neonates. With the aim of creating informed, statistics-based literature reviews and gaining insight into the field of infant development as a whole, I am also researching bibliometrics networks and techniques.**

**I'm passionate about volunteering my time towards improving the health, education and mental well-being of others as well as venturing out into creative projects like podcasts that positively impact folks in our community. I love being curious, and having meaningful discussions on all things science, from the visceral, cognitive world within to the ever-changing geological environment around us.**

**B. Positions and Honors**

***Positions***

**\*Research Assistant, Sensory-Motor Integration Lab – 09/2019 - present**

**TMS Clinician, Ridgewood Psychiatry Group – 08/2022 - present**

**EMT, Tri-Boro Volunteer Ambulance Corps – 06/2021 - present**

**Podcast Producer, New Jersey Autism Center of Excellence – 10/2019 – present**

**Lab Technician/ Medical Assistant, Lifeline Urgent Care – 07/2021 – present**

**Volunteer Science Content Creator, Know Science – 12/2020 – 05/2021**

**Event Coordinator, Rutgers Cognitive Science Club – 10/2020 – 05/2021**

**Resident Assistant (RA), Rutgers Residence Life – 08/2019 - 08/2021**

**Senior News Reporter & Radio Host, 88.7 WRSU-FM Rutgers Student Radio – 09/2018 – 06/2021**

**Research Assistant, Rutgers Earth & Planetary Sciences Dept. – 06/2018 - 06/2021**

***Honors***

**Paul Robeson Scholar (Spring 2021)**

**RA of the Year (Spring 2021), RA All-Star Award (Spring 2020)**

**School of Arts and Science Excellence Award - Agron Family Annual Scholarship (2019-2020)**

**Aresty Research Fellowship Award (Dec 2018)**

**C. Contributions to Science**

***Poster Presentations at Research Conferences***

**Varkey, H., Phan, H., Gordon, A., Kittler, P., Torres, E. B. (2022, November). Bibliometric Analyses of Observational vs. Digital Means of Screening Infant Neurodevelopment. Neuroscience 2022. *Society for Neuroscience*. San Diego**

**Varkey H., Mortlock R., Mchugh C., Mondal D., Schaller, Morgan F. (2018, December). Investigating the response of the Indian Monsoon during climate extremes with stable isotope records in corals. AGU Fall Meeting 2018. *American Geophysical Union*. Washington D.C.**

***Research Papers***

**Torres, E. B., Bermperidis, T., Varkey, H., Vero, J., London, E., Phan, H., Kittler, P., Gordon, A., Schafer, S., Gage, F. H., & Sejnowski, T. (2022). Sensing Echoes: Temporal misalignment as the Earliest Marker of Neurodevelopmental Derail. *bioRxiv*.** <https://doi.org/10.1101/2022.01.27.478048>

**Varkey, H., Torres, E. B. (2021). Written all over your Face: Mapping Stochastic Signatures of Audio and Facial expressions. [Unpublished senior honors thesis]. Rutgers University – New Brunswick.**

**Varkey, H., Mortlock, R., Mchugh, C., & Mondal, D. (2021). Investigating the Strength of the Indian Monsoons during Climate Extremes with Stable Isotope Records in Corals. Aresty Rutgers Undergraduate Research Journal, 1(2).** <https://doi.org/10.14713/arestyrurj.v1i2.152>

**D. Additional Information: Research Support and/or Scholastic Performance**