

**Mazen Mohamed**

Mazen.mohamed@northwestern.edu

## **EDUCATION**

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**Johns Hopkins University, Baltimore, MD**

*May 2023*

Bachelor of Science, Neuroscience (Departmental Honors)

## **WORK EXPERIENCE**

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**Mount Sinai Friedman Brain Institute** (Research Assistant)...June 2022-August 2022

- Investigated the symptomology of PTSD in a non-associative learning context using mouse model.
- Worked over 400 hours on running different behavioral assays, performing histology techniques, scoring and analyzing freezing behavior, imaging using a confocal microscope, and quantifying active cell count.
- Presented my data in lab meetings & designed a research poster outlining my research project.

**Johns Hopkins Anesthesiology & Critical Care Medicine (ACCM) department** (Research Assistant)...May 2021-March 2022

- Examined the effect of disrupting PDZ interactions to scrutinize early anesthetic exposure-induced cognitive dysfunction.
- Mastered histology and imaging techniques for over 400 hours, including embedding, cutting, mounting, imaging, reconstructing dendritic spines, and categorizing them into their respective types
- Presented my research in ACCM research day as one of only a few undergraduates

**Johns Hopkins Cognitive science department** (Research Assistant)...January 2021-May 2021

- Investigated how primary progressive aphasia impacts the white matter integrity of the major language pathways
- Isolated white matter tracts using a Diffuse Tensor Imaging (DTI) software

**Johns Hopkins Neuroscience department** (Undergraduate Teaching Assistant)... January 2021-May 2023

- Got selected as a TA for the 2<sup>nd</sup> biggest neuroscience class at Hopkins (200+ students)
- Hold office hours and review sessions to help students better understand the content

**National Research Center enzymology and genetics department, Cairo, Egypt** (Intern)... May 2018-July 2018

- Worked for 180 hours as a research assistant in breast cancer research
- Gained technical skills as dealing with cell media, PCR device, sterilization, and measuring dead cells.

**Ain Shams Specialized Hospital Neurosurgery department, Cairo, Egypt** (Shadow Neurosurgeon)... December 2020-January 2021

- Shadowed 12 brain and spinal cord surgeries for 100+ hours
- Learned about different brain and spine surgery techniques & tools

**Neurocare clinic, Cairo, Egypt** (Shadow Neurologist)... December 2020-January 2021

- Shadowed over 45 consultations for 30+ hours.
- Learned how physicians diagnose different conditions through patients' symptoms and signs

**AMIDEAST, Cairo, Egypt** (Mentor)... December 2018-December 2020

- Mentored over 20 rising high school seniors to apply to U.S colleges and lead them to get into very selective ones, such as U of Chicago, U of Rochester, Johns Hopkins, Northwestern, Tufts, and Colgate.

## **VOLUNTEERING AND EXTRACURRICULARS**

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**Kids Enjoying Exercise Now (KEEN)** (Co-chair)... August 2021-May 2022

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- Does physical exercises and recreational activities with kids that have different neurological disabilities
- Helps link communication between Hopkins faculty, volunteers, the kids, and their families

### **TEDx Youth EBIS**, Cairo, Egypt (Speaker)...June 2018-September 2018

- Was the youngest event speaker, spoke about intelligence from a social insight and how to use daily-life situations to boost one's fluid intelligence

### **Muslim Student Association** (Freshmen Representative)... September 2019-June 2020

- Planned and organized various events for the Muslim student body at Johns Hopkins, such as Muslim Awareness week, Spring Banquet, movie nights, study sessions, etc.
- Communicated with the general body members of Muslim student association, especially freshmen to representing their voices and needs.

### **International Students At Hopkins (ISAH)** (Ambassador)...November 2020-May 2021

- Helped design undergraduate international student orientation & marketing outreach for ISAH.

### **Caregiving Volunteer for an MS patient**... February 2019-March 2019

- Helped a Multiple Sclerosis patient with daily activities: writing emails, using social media, eating food, throwing out the trash.

### **Nest strategies** (Account executive)... September 2020-June 2021

- Designed a marketing and sales strategy for Kubanda Cryotherapy, a startup that offers minimally invasive, non-surgical treatment for lumps, bumps, and cancer
- Helped design a marketing strategy for Hopthon: an organization that helps fundraise for Hopkins Children's center

## **AWARDS AND HONORS**

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- Neuroscience departmental honors awardee at Johns Hopkins University (May 2023)
- NIH Predoctoral grant: got awarded \$5000 to conduct full-time research at Dr. Roger Johns' lab. (May 2021)
- Hodson Trust Scholar at Johns Hopkins University (December 2018)
- Onsi Sawiris Scholar (June 2019)
- Diana Kamal Scholar (March 2019)
- Third national position on Vodafone Hackathon 2018: got awarded 30,000 EGP (December 2018)
- National winner on the local challenge of NASA Space apps 2018, got awarded 15,000 EGP to construct our prototype (October 2018)
- National finalist in Intel ISEF (International Science and Engineering Fair) (March 2018)

## **SKILLS**

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- **Lab:** Running different behavioral assays (SEFL, tone, and conditioning), handling mice, euthanasia, transcardial perfusion, flash freezing, cutting (using cryostat and vibratome), mounting sections, staining (immunohistochemistry and Golgi), confocal microscopy (Leica and Zenn), neuroimaging, dendritic spine reconstruction, cell counting, scoring and analyzing mice freezing behavior, using DTI (Diffusion Tensor Imaging) softwares, Polymerase Chain Reaction (PCR), pipetting, DNA extraction, cell culture, measuring dead cells
- **Miscellaneous:** Teaching, scientific communication, presentation, public Speaking, problem-solving, scientific documentation, content creation, consulting, Excel (proficient), R language (amateur), Languages: Arabic (Native), English (Fluent), German (Beginner)