YASMINE BASSIL

NEUROSCIENCE PHD CANDIDATE

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Atlanta, GA | Open to Relocation
website | linkedin

SUMMARY

Cognitive neuroscientist specialized in spatial navigation and aging. Established a novel navigation research arm, developing VR paradigms, neuroimaging pipelines, and reproducible analysis workflows. Led a 13-member team while managing a 110+ participant research program and serving as Co-President of a 120+ member neuroscience PhD student community.

>> Seeking to apply research leadership and technical expertise to industry and leadership roles.

SKILLS

- ***technical*** — python, bash/zsh, git, R, MATLAB, FSL, VR, fMRI, TMS, TMS-fMRI, EEG, clinical
- ***research*** — statistical modeling, grant writing ($260K+ funded), data analysis & visualization
- ***leadership*** — project management, cross-functional team leadership, mentorship, comms

+ Arabic (native/fluent), English (native/fluent), French (working proficiency)

EXPERIENCE *(selected)*

NEUROSCIENCE PHD CANDIDATE — *Aug 2020 - May 2026*

Neural Plasticity Research Lab, Emory University

Research Leadership & Execution:

- Led dissertation research identifying behavioral and neural mechanisms of aging-related spatial navigation deficits, using VR, fMRI, and concurrent TMS-fMRI across 110+ recruited participants.
- Directed 15+ members of Navigation Team over 6 years (7 undergraduate, 6 doctoral students), establishing weekly meetings and tracking tasks & milestones across 8+ concurrent sub-studies.
- Established concurrent TMS-fMRI as institutional research capability through Emory's Center for Systems Imaging Core, expanding methodology access for broader Atlanta neuro community.

Technical Infrastructure & Tools:

- Directed build of immersive city-like VR navigation task in Unity; open-sourced on GitHub.
- Co-developed MR.Flow, a custom neuroimaging pipeline integrating fMRIPrep, FreeSurfer, and FSL with user-friendly GUI, replacing multi-step manual workflows.
- Created standardized analysis pipelines (Python, R) for Navigation Team reproducible protocols.
- Organized lab GitHub infrastructure (7 repositories), increasing accessibility of tools for internal and external researchers.

CO-PRESIDENT — *Jun 2023 - Jun 2025*

Graduates in Neuroscience, Emory University

- Led 22-member executive board across 12 leadership positions, serving as primary liaison between 120+ PhD students and program leadership. Organized 10+ annual program events.
- Transformed organizational infrastructure by establishing first internal documentation system, defining officer responsibilities, operationalizing role transitions, implementing regular leadership meetings (weekly co-chair, monthly full board), creating budget infrastructure, and instilling bi-annual recognition initiatives for officer contributions.

ORGANIZING COMMITTEE CHAIR — *Jul 2019 - Dec 2019*

Brainhack ATL 2019

- Led 13-member interdisciplinary organizing committee across multiple Atlanta research institutions to plan 3-day computational neuroscience hackathon for 30+ accepted attendees.
- Secured $35,000 in sponsorships, created 3 neuroimaging project tracks, recruited 6 faculty speakers, and attracted 90+ applications from 9 academic and professional institutions.

EDUCATION

PhD in Neuroscience - Emory University *(Aug 2020 - May 2026)*
Thesis: Behavioral and neural mechanisms of aging-related deficits in human spatial navigation

BS in Neuroscience - Georgia Institute of Technology *(Aug 2020 - May 2026)*
Highest Honors | Zell Miller Scholarship | Minor in Psychology, Research Option Certificate

MENTORSHIP

*Directly mentored **15+ trainees** (high school, undergraduate, & doctoral students), resulting in:*

- 5 award-winning presentations at institutional and regional conferences.
- 2 completed Honors Theses with Highest Honors designations at Emory University.
- 2 completed Research Option Certificates with published thesis at Georgia Tech.
- Multiple competitive fellowships, including Fullbright, DAAD-Rise, Georgia Tech President's Undergraduate Research Award, Emory Pathways Center Internship Funding, & 100 Senior Honorary Award by Emory Alumni Association & Student Alumni Board.

FUNDING *(selected)*

2022 - 2025 NSF Graduate Research Fellowship Program (Nos 1937971, 2439564) $170K+
2021 - 2022 NIH T32 Training Grant in Integrative Neuroscience (No T32NS096050) $90K+

HONORS *(selected)*

2025 - Teaching Award, Emory Neuroscience Graduate Program
2024 – Trainee Professional Development Award, Society for Neuroscience
2024 – Leadership Award, Emory Neuroscience Graduate Program
2023 – Excellence in Mentorship Award, Emory Neuroscience Graduate Program
2021 – Scholar, Georgia Tech / Emory Computational Neural Engineering Training Program

PUBLICATION HIGHLIGHTS *(selected)*

Bassil, Y., Kanukolanu, A., Funderburg, E., Cui, E., Brown, T., & Borich, M. (2025). Distinct aging-related profiles of allocentric knowledge recall following navigation in an immersive, naturalistic, city-like environment. *PsyArXiv. (under review at Frontiers in Aging Neuroscience)*

Bassil, Y., Kanukolanu, A., Funderburg, E., Brown, T., & Borich, M. R. (2025). Formation of allocentric representations after exposure to a novel, naturalistic, city-like, virtual reality environment. *Neuropsychologia,* 109290.

Woolgar, A., Feredoes, E., Assem, M., **Bassil, Y.**, Bergmann, T. O., Beynel, L., ... & Sack, A. T. (2025). Consensus guidelines for the use of concurrent TMS-fMRI in cognitive and clinical neuroscience. *Nature protocols,* 1-17.

*> Authored **6 publications** (1 in review), **23 poster presentations** (11 self-presented), and **2 platform presentations** (1 self-presented), winning a total of **6 presentation awards**.*

TEACHING *(selected)*

>	Instructor of Record	*Explore Neuroscience & Behavioral Biology*	NBB299
>	Co-Instructor	*Neurobiology Simulation & Analysis Lab*	BIO360L/NBB301L
>	Program & Teaching Assistant	*Global Neuro & Behavior*	NBB402W
>	Teaching Assistant	*Principles of Motor Learning*	DPT805

PRESS *(selected)*

2022 - Speaker | Tech Talks: Unique & Diverse Perspectives in Science, Atlanta Science Festival
2021 - Keynote Speaker | Neuroscience Research Symposium, Georgia Institute of Technology