

# NHI “SANDY” DOAN

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## EDUCATION

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**BA, Connecticut College** – New London, CT May 2023  
GPA: 3.94/4.0  
Major: Neuroscience (Honors, Distinction in the Major)  
Minors: Philosophy, Statistics and Data Science

## AWARDS

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<b>Rena Rimsky Wing Fellowship</b>	2023
<b>Psychology Department Prize</b>	2023
<b>Connecticut College Career Center Professional Development Fund</b>	2022
<b>Undergraduate Library Research Award</b>	2021
<b>Connecticut College Research Program Award</b>	2021, 2022
<b>Presidential Scholar</b>	2019-2020
<b>Dean's High Honors</b> (all semesters)	2019-2023

## RESEARCH EXPERIENCE

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**Harvard University** - Cambridge, MA June 2024 – Present  
*Advisor: Samuel Gershman*  
Explore types of information are encoded during learning and where this information is stored. We study simple forms of learning, such as habituation and conditioning, in single-celled organisms.

**Baylor College of Medicine** - Houston, TX August 2023 – April 2024  
*Advisor: Mingshan Xue*  
Investigated molecular mechanisms and prevalent phenotypes of CASK mutations in neurodevelopmental disorders through analysis of clinical data and mouse models.

**Connecticut College** – New London, CT Spring 2020 – Fall 2024  
*Advisor: Jeff Moher*  
Developed behavioral metrics to quantify attentional states through analysis of motor response patterns and eye movements.

**Connecticut College** – New London, CT Fall 2020 – Spring 2023  
*Advisor: Ruth Grahn*  
Investigated how early life stress influences vulnerability to trauma and anxiety, especially on learning and memory impairments through behavioral and neural analyses in rodent models at different stages of life.

## PUBLICATIONS AND MANUSCRIPTS

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Ramdas, T., **Doan, N.**, Theroux, A., Gershman, S. (In prep). Timescales of habituation in *Stentor coeruleus*.

**Doan, N.**, Steinharter, H., Mateo, A., Duval, M., Moher, J. (In prep). Motor variability as a window into sustained attention.

**Doan, N.**, Kohli, P., Grahn, R. (2023). Cognitive and neural development in rodent model of PTSD from maternal maltreatment. Behavioral Neuroscience Honors Papers. 14.

**Doan, N.** (2021). Evaluation of Animal Models and Previous Studies on PTSD. Library Research Prize. 10.

## SELECT PRESENTATIONS

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- “Cognitive and neural development in rodent model of PTSD from maternal maltreatment”, **Doan, N.**, Grahn, R. NEURON Conference, Quinnipiac University, April 23, 2023 (talk)
- “Increasing Biomechanical Costs Improve Sustained Attention”, **Doan, N.**, Duval, M., Mateo, A., Steinharter, H., Moher, J., Object Perception, Attention, and Memory, Boston, MA, November 17th, 2022 (poster presentation)
- “Impacts of early life stress on adult PTSD-like behaviors” M., Veilleux, G., LaMacchia, A., Myhayer, R., **Doan, N.**, Grahn, R., Annual Psychology Department Conference, Connecticut College, April 30, 2021 (poster presentation)
- “Lapses in sustained attention predicted by changes in visually guided movements,” Moher, J., Haber, C., Aaron, C., Schwab, E., **Doan, N.**, Vision Science Society Annual Meeting, virtual, June 3, 2021 (poster presentation)

## TEACHING AND MENTORSHIP

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<b>St. Paul's School</b> - Concord, NH <i>Intern, Data Science</i>	Summer 2023
<b>Connecticut College</b> - New London, CT <i>Teaching assistant, Psychological Statistics</i>	Fall 2022
<b>PassionNet</b> – Virtual, based in New Jersey <i>Co-director, Neuroscience and Storytelling</i>	Spring - Summer 2021
<b>South-East Asian Leadership Network</b> , Brunei <i>Curriculum Developer &amp; Mentor, SEALNet Project Brunei Youth.R.I.S.E. (PB19)</i>	Summer 2019

## SELECT LEADERSHIP AND CO-CURRICULAR EXPERIENCE

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<b>Institutional Animal Use and Care Committee</b> - Connecticut College <i>Student Representative</i>	2021-2023
<b>Platt Psychiatric Associates</b> - virtual, based in Cedar Grove, NJ <i>Intern</i>	Summer 2020

## SKILLS

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### Laboratory

Animal husbandry • Brain extractions • Cell culture • Crystal violet staining • Cryosectioning • Genotyping • Image analysis (ImageJ) • Imaging (wide field, confocal) • Immunohistochemistry • Microinjection • Rodent behavioral assays • Transcardial perfusions

### Programming

R • Julia • Python • MATLAB • C • SQL • HTTP • CSS • Javascript

### Hardware

3D Printing • Custom apparatus design • Laser cutting • Raspberry Pi

### Data collection

Participant recruitment • Eye-tracking administration (Eyelink) • Reach tracking • MRI administration (Level 1 Certified, Brown MRI Research Facility)

### Data analysis

Data manipulation & visualization • Statistical analyses • EEG signal processing

### Language

Bilingual (Vietnamese and English), German (beginner)