

Aalliyah Celestine

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SENIOR UNDERGRADUATE, MATHEMATICS, XAVIER UNIVERSITY OF LOUISIANA

EDUCATION **Xavier Univeristy of Louisiana**, Xavier University of Louisiana, Louisiana
Bachelor of Science, Mathematics *Aug' 18 - May 22 (Expected)*
GPA: 3.61/4 (Overall)

RESEARCH INTERESTS Noncrossing Partitions, Combinatorics & Probability, Computational Neuroscience

PUBLICATIONS People Over Math: A Co-created Principle for Successful Research Communities. Faculty authors: Rebecca Garcia, Pamela E. Harris, and Dwight Anderson Williams II, Graduate student authors: J. Carlos Martínez Mori and Casandra Monroe Undergraduate student authors: Tomás Aguilar-Fraga, Yasmin Aguillon, Daniel Alofamoni Quiñonez, Dylan Alvarenga, **Aalliyah Celestine**, Parneet Gill, Imhotep Hogan, Jakeyl Johnson, Kobe Lawson-Chavanu, Lina Liu, Aaron Ortiz, Lauren Quesada, Cynthia Marie Rivera Sánchez, Christopher Soto, Camelle Tieu, Dirk Tolson III, Jacob van der Leeuw, and Pamela Vargas. Submitted.

AWARDS & ACHIEVEMENTS Awarded the **Norman C. Francis Scholarship**, Xavier Univ. of LA '18 - '22
Awarded the **TOPS Performance Stipend & Award**, Xavier Univ. of LA '18 - '22
Patrick F. Taylor Foundation Scholarship, Xavier Univ. of LA '18 - '22
Outstanding Academic Achievement, Xavier Univ. of LA '18
Dean's List, Xavier Univ. of LA '18 - '21
National Honor Society of Leadership and Success (NSLS), Xavier Univ. of LA '20 - '21

RESEARCH PROJECTS **Tracking Functional Connectivity using Dynamic Independent Component Analysis during Meditation**
Supervisor : Prof. Jeremy Cohen *Jan '20 - Present*
- Using **GIFT** for configuring meditation subject data
- Devising solving strategies to decode uniquely defined neural network states associated with the varying stages of breath-focused meditation

k-Typed Parking Functions
Research Director : Dr. Pamela E. Harris *Jun '21 - Jul '21*
- Explored a new variant of the classical parking functions to describe the parking of ordered, typed cars in the form of tuples
- Devised strategies to count the total number of exact k -type parking functions of a certain length through a series of combinatorial techniques

COMPUTER SKILLS **Languages:** Java, Python, \LaTeX
Research Tools: MATLAB (R2020b), Group ICA of fMRI Toolbox, Overleaf
