

# Nurlan Gasimli

nurlan\_gasimli@student.uml.edu  
[ngasimli.github.io](https://ngasimli.github.io)

## RESEARCH INTERESTS

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My research interests lie in Algebraic and Differential Geometry, where I focus on Hodge Theory, algebraic cycles, and their applications in Algebraic Geometry. In Number Theory, I explore topics such as the Riemann Hypothesis, Langland's Program, and the Arithmetic of Elliptic Curves.

Algebraic and Differential Geometry, Hodge Theory ... (from the most important to the least)

## EDUCATION

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**University of Massachusetts Lowell**  
B.S. in Mathematics

Lowell, MA  
Expected May 2024

## AWARDS

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### Competition Winner

- 2nd Place in the UMass Lowell Mathematics Competition as a freshman, competing against junior and senior students among the entire undergraduate cohort.

### Scholarship

- 2nd Place in the UMass Lowell Mathematics Competition as a freshman, competing against junior and senior students among the entire undergraduate cohort.

## EMPLOYMENT

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**University of Massachusetts Lowell**  
Research Assistant

Lowell, MA  
Summer, 2021

- Collaborated on Ramsey Theory research under the guidance of Professor Daniel Glasscock.
- Focused particularly on quasi-arithmetic progressions and various aspects of integer Ramsey Theory.
- Explored topics such as syndeticity, topological dynamics, and ergodic theory, with direct applications to Number Theory.

## PUBLICATIONS & PREPRINTS

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*Ergodic Ramsey Theory: Piecewise Syndeticity Constant*

Nurlan Gasimli, Daniel Glasscock

[https://ngasimli.github.io/assets/ergodic\\_ramsey\\_theory.pdf](https://ngasimli.github.io/assets/ergodic_ramsey_theory.pdf)

## SKILLS

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**Language** English, Azerbaijani, Turkish,  
**Programming** Python

## LEASURE INTEREST

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Chess, Brain Ring Games