# Lance Myers

## Education

Exp Grad. 2020 BS in Mathematics, University of Louisiana at Lafayette, Lafayette, GPA:3.88.

Minor in Physics

## Research and Projects

#### Summer 2016 Latin Square Solutions to a Modified Rubik's Cube.

- $\circ$  Categorized all solutions of the  $2 \times 2$  case
- $\circ$  Bounded the number of solutions to the  $n \times n$  case
- Presented poster at LSU SURF 2016

#### Spring 2018 An Analysis of Colony Collapse Disorder.

- Developed a system of ODE's to model not only the bee population but also the population of flowers transmitting the disease
- o Wrote numerical simulations of the system in MATLAB
- o Analytically determined stability conditions for the system

## Spring 2018–Present **Hypercyclic Operator Theory**.

- o Began by working through the essential parts of Introductory Functional Analysis by Kreyszig
- $\circ\,$  Read through the foundational papers of the field
- Prepared a presentation on the Invariant Subspace Problem
- o Currently working on frequently hypercyclic operators

## Fall 2018-Present Lego - A Small Programming Language.

- o Compiles physically meaningful computation to efficient C
- o Type system modeled after dimensional analysis
- o Prioritizes correctness, expressiveness, and efficiency in that order
- Enables interactive editing
- More information at github.com/lancekmyers/LEGO

#### Extracurricular Involvement

#### Fall 2017–Present **UL Math Society**.

Vice President since Fall of 2018

- o Give short presentations and lead discussions
- o Help to plan and coordinate activities
- Communicate information about meetings

## Technical Skills

Proficient Haskell, Scheme, Ocaml

Intermediate MATLAB, Python, Agda

Tools LATEX

#### Awards

Jefferson Caffery Scholarship

2018 Second Place in LA/MS MAA Team Competition

Spring 2018, Fall 2018 President's List

Fall 2017 Dean's List