

# An Investigation of Elementary Category Theory

## SKELETAL PRESENTATION

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$$\begin{array}{ccc} A & \xrightarrow{1_A} & A \\ & \searrow f \circ 1_A & \downarrow f \\ & & B \\ & & \xrightarrow{1_B} B \end{array} \quad \begin{array}{c} \\ \\ \searrow 1_B \circ f \end{array}$$

# Presentation Overview

- 1 Introduction: “A Bird’s-Eye View of Mathematics?”
- 2 Theoretical Underpinnings: Axiomatic Constructions
- 3 Category-Theoretic Interpretations of Familiar Structures
- 4 Further Applications: Functional Programming and  $\lambda$ -Calculus

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