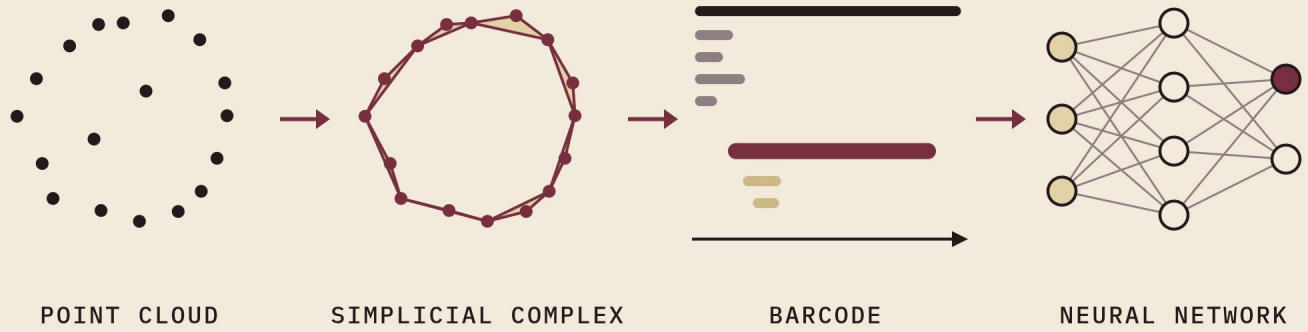
FLORIDA STATE UNIVERSITY · DEPARTMENT OF MATHEMATICS

NEW COURSE SPRING 2027 · 3 CREDIT HOURS

Introduction to

Computational Topology and Machine Learning

Data has shape. Learn to see it, then teach machines to use it.



WHAT YOU WILL LEARN

01 Geometric Topology

Shapes, complexes, and holes, taught with pictures, not algebra.

02 Data Analysis

Persistence and barcodes for point clouds, networks, and images.

03 Machine Learning

Decision trees, neural networks, and CNNs, coded in Python.

Python taught from scratch | No prior topology needed | Team capstone project

COURSE
MAP 4934.02
Graduate section:
MAP 5932.04

WHEN & WHERE
MW · 3:05 PM
LOV 107

QUESTIONS?
Dr. Astrit Tola
atola@fsu.edu

Prerequisite: MAC 2312 with a B– or better, or MAC 2313 with a C– or better. Open to undergraduate and graduate students in all majors; enrollment priority for Mathematics, Computer Science, and Scientific Computing students.