

CSC373 Algorithms

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1 Shape

- A solid object is $\Omega \in \mathbb{R}^3$, which has a surface $\partial\Omega$.
- A thin object can be approximated by its mid-surface (which has a boundary).

Curves and Surfaces

- Explicit Definitions:
 - Function/height field: $y = f(x)$
 - Parametric form: $(x, y, z) = p(t)$
- Implicit Definitions:
 - $g(x, y) = 0$