

Yousef Ahmed Gomaa

MECHATRONICS ENGINEER

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Summary

Mechatronics Engineer with a strong academic background in **Advanced Mathematics (Math 1 – Math 5)** and hands-on experience in applying mathematics across **engineering, fluid mechanics, statistics, and artificial intelligence**. Experienced in **teaching and summarizing mathematical concepts**, creating comprehensive study notes, and delivering clear explanations to diverse learners. Skilled in applying **linear algebra, calculus, probability, and differential equations** to real-world problems. Passionate about **applied mathematics, computational modeling, and AI-driven solutions**.

Experience

Math Instructor

- Taught Advanced Mathematics (Calculus, Algebra, Probability, Statistics) to university students and prepared structured study notes & summaries.
- Designed simplified approaches to explain complex mathematical concepts for effective learning.

Applications for Mathematics in Engineering & AI

- Applied differential equations and fluid mechanics models to solve engineering problems.
- Integrated probability, statistics, and linear algebra into AI and machine learning projects.
- Experienced in building mathematical models for classification and prediction tasks.

Education

BSc in Mechatronics Engineering (Senior)
Mansoura University, Egypt (Expected 2026)
GPA: 3.8 / 4.0

Technical Skills

- **Advanced Mathematics (Math 1 – Math 5)**
- Linear Algebra, Calculus, Differential Equations, Probability, Statistics, Numerical Methods
- Mathematical Modeling & Simulation
- Applied Mathematics in **Fluid Mechanics** and **AI**
- Machine Learning & Statistical Analysis
- Problem Solving & Analytical Thinking
- Teaching & Summarizing Mathematical Concepts

Projects

- **Hand Gesture Classification using Computer Vision**
- **Engineering Applications for Fluid Mechanics**