

# Sejal Kumari

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*Driven Year 2 Computer Science student with a strong foundation in data science and algorithmic problem-solving, passionate about applying statistical models and computational logic to real-world systems.*

## EDUCATION

### ABES Engineering College

10/2023 to 07/2027

Bachelor of Technology in Computer Science and Engineering

- GPA 8.56/10
- Pragati Scholarship – merit-based scholarship from Government of India

## TECHNICAL SKILLS

- **Languages:** C, C++, Python, HTML, CSS
- **CS & Logic:** Data Structure and Algorithms, Recursion, State Machines, OOP
- **Data Science:** NumPy, Pandas, scikit-learn, statsmodels, matplotlib, seaborn
- **Mathematics:** Discrete Mathematics, Multivariate Calculus, Probability and Statistics

## SELECTED PROJECTS

### Stock Portfolio Optimization using Holt-Winters Forecasting and Linear Programming

01/2025 to 04/2025

- Developed a predictive stock investment model with holtwinter's double exponentiation, leveraging time series forecasting techniques to forecast stock prices two years into the future.
- Formulated mean-variance optimization model using risk (volatility), to maximize expected return.
- Designed a portfolio allocation strategy ensuring loan repayment with  $\geq 10\%$  profit on initial \$1M investment, using Python (statsmodels, SciPy) for forecasting and Julia (JuMP, Mosek) for optimization.

### Full Stack Development using Behavioral Analysis and Data-Driven insights

06/2024 to 08/2024

- Developed Food Mania, an online food ordering platform integrating user behavior analysis and data-driven insights to enhance customer experience.
- Implemented data exploration techniques to optimize the menu layout, improve navigation, and streamline the ordering process.
- Designed using HTML, JavaScript and CSS, ensuring a responsive interface with structured data handling for better decision-making and user engagement.

## RELEVANT COURSEWORKS

- Data Structures
- Discrete Structure and Theory of Logic
- Data Science
- Python
- Automata

## CO-CURRICULAR ACTIVITIES

### Event Management – University wide event

11/2024

- Managed 15+ events as part of the Event Management Department, with 50+ volunteers, 500+ participants, and 500+ audience members.
- Successfully executed SAARANG -the cultural festival, demonstrating skills in event planning, coordination, and execution.
- Utilized skills in leadership, team management, communication, and time management to ensure a successful event.

## SOFT SKILLS

- Analytical and Algorithmic Thinking
- Collaborative Mindset
- Technical Curiosity & Self-Learning
- Precision & Attention to Detail

## ADDITIONAL INFORMATION

- **Languages :** Hindi, English