

# KOMAL SONI

Bengaluru, India • [sk.26komal@gmail.com](mailto:sk.26komal@gmail.com) • [www.linkedin.com/in/komalsoni-](https://www.linkedin.com/in/komalsoni-)

## EDUCATION

**M.Tech., AI ML** - Birla Institute of Technology and Science (2025)

**B.Tech., CSE** - Hyderabad Institute of Technology and Management (2022)

**12th** - Shivam junior college (2017)

**10th** - Indo American Group of Schools (2015)

## TECHNICAL SKILLS

- **Programming Languages:** Python, SQL, C++
- **Machine Learning:** Supervised Learning, Unsupervised Learning, Deep Learning
- **Data Manipulation and Visualization:** Pandas, NumPy, Matplotlib, Seaborn
- **Natural Language Processing (NLP):** Text Classification, Sentiment Analysis
- **Data Mining and Exploration:** Feature Engineering, Dimensionality Reduction, Clustering
- **Model Evaluation and Validation:** Cross-Validation, Hyperparameter Tuning, Model Selection
- **Version Control:** Git, GitHub, Vela
- **Collaboration and Documentation:** Jupyter Notebook, Confluence, Markdown, Jira

## PROFESSIONAL EXPERIENCE

**Engineer-Target**, Bengaluru

**Aug 2022 – Present**

- Designed and developed end-to-end solutions that integrate machine learning models into web applications
- Successfully tested, implemented and deployed time series algorithms, such as FB Prophet and isolation forest, to extract insights like anomaly detection within MTTD(<5 min) and forecasting for various metrics emitted by applications.

**Product Development Intern-Intellimation.AI**, Mumbai

**Dec 2021 – Mar 2022**

- Developed NLP model as a fintech solution for firms, including data cleaning, preprocessing, and building a pipeline for text detection.
- Processed and annotated thousands of emails for automated text detection.

## PROJECTS

**Apparel And Accessory Demand Transfer**

**Mar 2023**

- Employed a two-step approach utilizing the K-Nearest Neighbors algorithm to cluster the dataset into 80 groups based on product attributes and sales patterns.
- Utilized Natural Language Processing techniques to analyze the sales impact of the top 10 products within each cluster, considering product descriptions.
- Combined machine learning and NLP methodologies to provide actionable recommendations for optimizing assortment decisions and driving sales growth in the apparel and accessory retail industry.

**Email Parser And Summarizer**

**Jun 2022**

- Designed and implemented an email parser and summarizer web application using Streamlit that saves users 10-50 minutes on average by summarizing their emails.
- Utilized SMTP for email access, NLP techniques for email summarization, and Streamlit for web development.

**Bitcoin Price Prediction Using Various Regression-Based Models**

**May 2022**

- Conducted a comprehensive study by testing 11 different regression-based models for bitcoin price prediction within a 24-hour time interval.

- Achieved an impressive accuracy of 99.182% using the Bayesian Ridge Regression model.

#### **Cloud Bowl Microservice Game**

**Oct 2021**

- Built a fighting bot for the water arena to compete against 300+ bots and secured sixteenth position in the arena.
- Collected live positions of other bots using JSON and used microservice to launch bot in google cloud platform at a GDC serverless hackathon.

#### **AI-Assisted Farming For Crop Recommendation & Farm Yield Prediction Application**

**Aug 2021**

- Using various IBM cloud services such as node red app, Watson studio, autoAI, IBM machine learning, developed a model and user interface to recommend a crop based on various climatic conditions and also predict revenue for a given production of crops.
- Gained 91.1% accuracy using LGBM classifier and Snap Boosting Machine regressor.

#### **RESEARCH PAPER PUBLICATIONS**

- **IJARESM:** "Asymmetric Encryption" **Jul 2022**
- **IEEE:** "Bitcoin Price Prediction- an Analysis of various Regression-Based Models" **Jun 2022**
- **SPIEIC:** "AI-Based Prediction of Rainfall from Satellite Observation for Disaster Management" **Nov 2020**

#### **COURSES AND CERTIFICATES**

- **Machine Learning Professional Certificate (IBM)** **Jul 2023**
- **Applied Data Science with Python Level 2 (IBM)** **May 2021**
- **Data Science for Engineers (NPTEL)** **Apr 2021**
- **Python 3 Specialization (Coursera)** **Sep 2020**
- **Developing Applications with Google Cloud Platform Specialization (Coursera)** **May 2020**
- **Fundamentals of Deep Learning for Computer Vision (NVIDIA)** **May 2020**

#### **LANGUAGES**

- **English:** Full professional proficiency
- **Hindi:** Native or bilingual proficiency