# SEMAL JOHARI

Ghaziabad, India | +918587868917 | semaljohari80@gmail.com | Portfolio | LinkedIn | GitHub | Medium

## EDUCATION

**Gautam Buddha University, Greater Noida, UP** *August, 2021 – May, 2025*
BTech in CSE with Specialization in Machine Learning *(CGPA: 9.46)*

## TECHNICAL SKILLS

**Languages:** Python, SQL, HTML-CSS, R, JavaScript, Dart, C, DAX
**Frameworks:** Flask, Numpy, Keras, TensorFlow, Streamlit, Scikit-Learn, Matplotlib, PyTorch, OpenCV, SciPy, Seaborn, Pandas, BeautifulSoup, Sweetviz, HuggingFace, FastAPI, Django
**Softwares & Tools:** Power BI, Git & GitHub, VS Code, PyCharm, Jupyter Notebook, Google Colab, Microsoft Excel, MATLAB
**Cloud Platforms & MLOps:** Microsoft Azure, Google Cloud Platform, Amazon Web Services, Weights & Biases

## WORK EXPERIENCE

**Physics Wallah Limited | AI/ML Content Strategist Intern** *March, 2025 – Present, Bengaluru, India*
- Developing and managing both theoretical content and hands-on projects in Artificial Intelligence and Data Science for skill development courses offered by Physics Wallah and PW Institute of Innovation.

**PurpleME India OPC Pvt Ltd | Data Analyst Intern** *November, 2024 – February, 2025, Delhi, India*
- Designed and developed interactive Power BI dashboards by analysing the financial and sales data for business clients using advanced Power Query techniques and DAX programming.
- Integrated and transformed data from multiple sources, like Microsoft Excel, SQL databases, and dynamic feeds from QuickBooks.
- Built PowerApps solutions, including an automated expense management system, leveraging Power Automate flows to streamline invoice processing by uploading invoices to the app to SharePoint documents library and dynamically capturing their details in Excel.

**Stillsweb Technologies Pvt Ltd | Image Processing & AI Intern** *June, 2024 – September, 2024, Noida, India*
- Worked on multispectral data from satellites like Sentinel-2 and LandSAT for the estimation of the local climate, vegetation indices and soil types in different farms to derive patterns for the types of crops grown due to the given factors for developing a recommendation engine to assist farmers in selecting the crops to grow in specific regions.
- Leveraged the derived patterns and demonstrated the results through a data analytics dashboard. The primary responsibilities included Spatial Data Research, Data Collection and Assessment, Crop Health Analysis and Vegetation Indices analysis.

**Omnipresent Robot Technologies Pvt Ltd | Machine Learning & IoT Intern** *July, 2022 – August, 2022, Greater Noida, India*
- Worked on developing a software for serving the purpose of object detection and recognition for an Indoor Autonomous Warehouse Drone using Computer Vision, Deep Reinforcement Learning and IoT technology for drone navigation, perception and control.
- Utilized various Python frameworks like PyTorch and OpenCV for point cloud 3D mapping in the drone's unknown environment.

## PROJECTS

**Knightmare - Chess Engine |** *GitHub* *November, 2024 - Present*
- Engineered a reinforcement learning based chess engine application from scratch using Python and the Pygame framework, incorporating Minimax with Alpha-Beta Pruning for enhanced strategic decision-making capabilities.
- It features complete rule compliance, including En Passant, Castling, Pawn Promotion, Checkmate and Stalemate and move notation display, with further enhancements on the user interface and engine being made on developing a menu for board flipping, mouse drag and promotion piece selection, stalemates by 50-move and 3-time repetition rules and databases for openings and endgames.

**JARVIS – Voice Assistant |** *GitHub* *October, 2024*
- Developed a robust local voice assistant inspired by JARVIS from the Marvel Universe, featuring facial authentication for secure access to the application and designed to respond to predefined trigger phrases (hot words) for seamless activation and deactivation.
- Its key features include an intelligent chatbot interface for user inquiries, seamless navigation of websites in the default browser, launching locally installed applications and making calls or sending messages through WhatsApp or the mobile device.

**Autonomous Vehicle Perception |** *GitHub* *September, 2024 - October, 2024*
- Spearheaded an MLOps project implementing Semantic Segmentation on BDD100K dataset, comprising thousands of self-driving car images, leveraging a Weights & Biases dashboard for streamlined experimentation and tracking to perceive the objects near the car..
- The model undergoes optimization through hyperparameter tuning and is assessed using individual Intersection over Union (IoU) scores. Their detailed reports along with job and sweep run insights, are documented in the *Weights and Biases Workspace*.

## PUBLICATIONS

(1) Johari, S., & Singh, P. (in press). Cognitive Intelligence and Big Data: A Symbiotic Approach to Predictive Analytics in Healthcare. *IEEE Xplore.* 2025
(2) Johari, S. (in press). From Pixels to Perception: Refining Depth Estimation Techniques in 3D Vision Systems for Automated Inventory Management using Deep Learning-Driven Approaches. 2025

## ADDITIONAL INFORMATION

**Certifications:** Microsoft Certified: Azure Data Scientist Associate by Microsoft, Career Essentials in Generative AI by Microsoft and LinkedIn, Artificial Intelligence Virtual Experience Program by Cognizant, SQL (Advanced) by HackerRank, AWS Knowledge: Cloud Essentials by AWS, Data Analytics and Visualization Job Simulation by Accenture, Machine Learning with Python by IBM

**Achievements:** First Position in Microsoft Azure Blogathon by ID8NXT and Microsoft Azure

**Positions of Responsibility:** Cloud Computing Team Lead, Microsoft Learn Student Ambassadors - GBU (September, 2024 - Present), Community Lead, CodeChef GBU Chapter (April, 2023 - April, 2024).