# ASHISH JAISWAL
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## EDUCATION

**Northeastern University, GPA**: 3.8 /4.0                                                                                              *09 2025 -  09 2027*
Masters Data Science
Relevant Coursework: Algorithms, Data Structures, Machine Learning, Computer Vision

**SVKM Institute of Technology**
**GPA**: 3.4/4.0                                                                                                                                              *09 2019 – 09 2023*
Bachelor of Computer Engineering

## TECHNICAL SKILLS

**Programming Languages & Fundamentals**: Python, SQL, Java, C++, Data Structures & Algorithms

**Data Science, Analytics & Data Visualization**: Machine Learning, Deep Learning, Statistical Analysis, Predictive Modelling, Data Mining, Feature Engineering, Artificial Intelligence, Tableau, Power BI

**Databases**: MySQL, MongoDB, PostgreSQL

**Cloud Platforms, Big Data Technologies & Tools:** AWS, Git, Docker, Apache Spark, Databricks

**Soft Skills**: Leadership, Team Management, Project Management, Stakeholder Communication.

## PROFESSIONAL EXPERIENCE

**Airox Technologies Pvt Ltd, India**                                                                                                    *08 2023 – 02 2024*
**Jr Data Scientist**
• Collected and pre-processed data from various sources using python, SQL and various data preprocessing techniques, including industry reports, market trends, and healthcare data, reducing data processing time by 40%.
• Analyzed historical sales data spanning 3+ years to forecast future demand for oxygen generators and performed market segmentation to identify key market segments with 25% higher demand potential.
• Developed and deployed 3 machine learning models to predict future trends and demand and Created visualization and reports to communicate insights and findings to stakeholders.

**KPMG - Virtual Internship, Remote**                                                                                                  *09 2023– 09 2023*
Data Analyst Intern
• Completed a simulation focused on advising a client on customer targeting by conducting data analysis and developing prediction models with 90% the data, analytics & modelling team.
• Assessed data quality and completeness across 15+ datasets in preparation for analysis, analyzed data to target top 10% high-value customers based on demographics and attributes, and developed 3 interactive dashboards that improved stakeholder decision-making by 45%

**BCG - Virtual Internship, Remote**                                                                                                   *06 2022 – 07 2022*
Data Science Intern
• Worked on customer churn analysis simulation, demonstrating advanced data analytics skills by identifying 12 essential client data variables and outlining a strategic investigation approach that reduced analysis time by 30%.
• Conducted efficient data analysis using Python, including Pandas and NumPy. Employed data visualization techniques for insightful trend interpretation.
• Completed the engineering and optimization of a random forest model, achieving an 85% accuracy rate in predicting customer churn.
• Orchestrated the presentation of data-backed insights to the Associate Director, delivering recommendations that reduced time spent on data gathering by 25% and accelerated decision-making.

## PROJECTS

**Multimodal AI Assistants for Design**                                                                                               *Recently Working*
Designing and implementing multimodal AI assistants using Python, TensorFlow, and Hugging Face Transformers to integrate text, images, and voice inputs for intuitive design Leveraged advanced deep learning models and multimodal fusion techniques to interpret diverse user cues simultaneously, enhancing creative productivity and enabling natural human-computer interaction in design applications.

**Semantic Segmentation for Precise Object Selection**                                                                     *11 2024 – 01 2025*
Developed a deep learning semantic segmentation model using U-Net with transfer learning, trained on 1,000+ annotated images, achieving Dice coefficient of 0.92 IoU of 0.86. Implemented in Python, TensorFlow, and OpenCV, optimized for efficient GPU training completing in under 4 hours with real-time inference (~50ms per Images). Enabled precise pixel-wise object selection demonstrated on 500+ images for real-world image editing applications.

**Affordable Tool Kit for Vehicles to Reduce Human Error**                                                              *10 2023 – 03 2024*
Engineered an innovative IoT-based smart helmet integrating 5 key sensors: alcohol detection (fuel cell technology), dehydration monitoring, accelerometer-based accident detection and real-time GPS tracking to enhance rider safety. Developed embedded systems using Arduino and C++ and integrated GSM module for automatic alerts, reducing accident response time by 40%. Achieved 90% accuracy in accident detection and 95% reliability in alcohol detection, contributing to road safety innovation.

## CERTIFICATIONS & ACCOMPLISHMENTS

• Published a research paper titled **"Hybrid Machine Learning Models - Trends in Combining and Neural Approaches,"** which explores the integration of various machine learning techniques and neural networks to enhance predictive accuracy and model performance. The study highlights innovative methodologies and their applications in solving complex data-driven problems.

• Published a research paper **"Improving CNN Performance in Real-Time Object Detection with Advanced Data Augmentation"** which focuses on advanced data augmentation techniques to enhance the performance of Convolution Neural Networks (CNNs) in real-time object detection.

• Certification in Data Science & Analytics with AI ML from UpGrad.

• Google Data Analytics Certification

• Swimmer and Football Player: Demonstrated excellence in sports by competing at state and national levels representing **DBATU University**.

• Hackathon Participant: Collaborated with peers in a state level hackathon focused on developing an IoT-based smart helmet designed to enhance safety for motorcyclists.