

Mayank Sehgal

📧 Lt-MkS

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LinkedIn

Education

- **Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab**
Bachelor of Technology - Computer Science November 2022 - May 2026
- **Tashkent International School, Tashkent, Uzbekistan**
International Baccalaureate Diploma (IB) May 2019 - June 2022

Experience

- **AI/ML Trainee**
Defence Research and Development Organization, Delhi, India June 2024 - August 2024
 - Analyzed over 5+ Research papers on Convolutional Neural Networks, Privacy-Preserving Machine Learning, Fully Homomorphic Encryption, Transformers, etc.
 - Implemented Model Stealing attacks and improved the efficiency of a defense mechanism by 20% in FHE Based Systems.
 - Gained Expertise in Contrastive Language-Image Pretraining and Zero-Shot capabilities used in GPT 2.

Projects

- **Cloud Right - Weather Updates Website** 🌩 March 2024 - April 2024
CSS, EJS, ReachJS, Open Weather Map API
 - Engineered an innovative weather app delivering instant city-specific weather details; improved user retention by 25% and garnered 4.8-star ratings from over 100+ reviews.
 - Integrated the Open Weather Map API to deliver real-time data on temperature, pressure, wind, and humidity; enhanced user engagement by 40% by providing up-to-date and accurate weather information.
 - Circulated the Project to 5 different colleges to enhance interaction and earn feedback. Additionally, optimized backend processes, ensuring faster data retrieval and improved app performance overall by 20 %.
- **Multimodal Fusion Transformer for Remote Sensing Image Classification** June 2024 - August 2024
PyTorch, NumPy, GIS libraries
 - Leveraged 5+ Hyperspectral images datasets such as University of Pavia, Indian Pines, Washington DC MALL, etc.
 - Executed Multilevel Perceptron and Convolutional Neural Networks on large-scale datasets, achieving a 40% improvement in model accuracy and reducing prediction error rates by 25%.
- **Airline Reservation System** December 2023 - January 2024
C++, OOPS, DBMS
 - Developed an intuitive ticket booking system with less than 5 seconds response rate and user-friendly interfaces.
 - Engineered a customer-centric interface to personalize the booking experience and ensure accurate record-keeping with 95% accuracy.

Skills

- **Technical Skills:** Selenium, C, C++, Python, PyTorch, SQL (MySQL), HTML/CSS, JavaScript
- **Developer Tools:** Git, MySQL, Logger Pro, RStudio

Achievements

- **Hackathon 3.0:** Ranked in the top 5 teams out of 50 teams. Won Cash price of 1000.
- **Technical Head:** Directed Think India website (HTML, CSS, JavaScript, node.js); Released 20+ articles daily to transfer information to 5000+ individuals.
- **Adobe GenSolve Hackathon:** 13th position out of 60 teams nationally. Contributed to the role of Backend developer.