

Hivanshu Tyagi

hivanshutyagi4961@gmail.com | +1 3392421631 | [linkedin.com/in/hivanshu-tyagi-08a8b522b/](https://www.linkedin.com/in/hivanshu-tyagi-08a8b522b/)

SUMMARY

Expertise in data analysis, statistical modeling, and machine learning. Proficient in Python, R, and Java to build data-driven solutions and extract insights. Skilled in developing analytical workflows, creating visualizations, and applying ML techniques. Focused on practical problem-solving, collaboration, and turning data into impactful decisions.

EXPERIENCE

Research Intern, Indian Institute of Science Education and Research *May 2023 - Jul 2023*

- Developed an automated deep learning pipeline that performs pixel-wise segmentation, processing 150 high-resolution images with 6000 labeled patches to identify key tissue regions.
- Implemented a sliding window approach for efficient processing of images with size over 1GB, optimizing memory usage and preserving details, while applying contour detection to extract ROIs.
- Designed a cellularity estimation algorithm, achieving 80% accuracy, reducing manual effort by 75% and error rate by 15%, significantly improving efficiency over traditional methods.

Data Analyst, Chandigarh Police with Infosys *Nov 2021 - May 2022*

- Conducted a detailed survey with 2000+ participants, collecting and structuring data in a database, identified 30 unique cyber fraud patterns through data analysis and visualization.
- Enhanced fraud detection strategies and informed substantial policy revisions, improving system resilience that led to a 30% reduction in fraud incidents through effective implementation of measures.
- Enhanced website functionality by updating data and implementing new features, optimizing efficiency.

SKILLS

Programming Language: Python, Java, C++, R, HTML/CSS, Javascript

Concepts: Machine Learning, Data Structures Algorithms, Database System, Data Mining, Visualization

Tools: Git, SQL, MySql, Word, Excel, IntelliJ, Visual Studio Code, Jupyter Notebook

EDUCATION

Master of Science , Computer Science *Aug 2024 - Dec 2025*

University of Illinois, Springfield, USA GPA: 4.0

Bachelor Of Technology, Computer Science And Engineering *Dec 2020 - May 2024*

Pujab Engineering College (Deemed to be University), India

PROJECTS

Meal Recommendation System

- Built a meal recommendation system using K-means clustering and rule-based filtering to match user macronutrient goals.
- Built an end-to-end ML pipeline for food clustering, nutrient filtering, and meal generation using **Python**, **Scikit-learn**, and **data preprocessing**, achieving high nutritional accuracy.

Ghumantu

- Engineered a scalable micro-service-based CRUD web application supporting online ticket booking for more than 60 Indian cultural and heritage sites.
- Optimized security protocols utilizing Auth Service, JWT tokens, and reverse proxy via an API gateway.

Toxic Comment Classifier

- Developed a toxicity detection model that achieved over 85% accuracy in identifying threats, obscenity, insults, and identity-based hate
- Deployed a robust machine learning solution to discern toxic remarks, enhancing content safety by removing objectionable comments.

Achievements

- Coursera certificate for Supervised Machine Learning and Advanced Learning Algorithms by DeepLearning.AI and Stanford University.
- Volunteered and served in international festival at UIS.
- Served as part of National Service Scheme for the upliftment of underprivileged sections of society.