Samrat Ghosh

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SKILLS SUMMARY

- **Languages**:   Python, C, C++, Java, JavaScript
- **Specialization**:   Artificial Intelligence & Machine Learning, Computer Vision, Natural Language Processing, Deep Learning
- **Frameworks**:   MERN Stack (MongoDB, Express.js, React, Node.js), Flutter, Hadoop, Tailwind CSS, Playwright
- **Tools/Platforms**:   Automation Anywhere, Blue prism, MySQL, MongoDB, Oracle, MS Office, Streamlit
- **Soft Skills**:   Leadership, Problem-Solving, Teamwork, Communication, Project Management, Adaptability

PROJECTS

- **Seed Quality Analyzer | Click to view**   April 2025
  - Developed a real-time, Python-based web app for rapid seed quality analysis using HSV, RGB, Laplacian variance, and geometric features.
  - Incorporated augmentation learning for improved generalization; currently ML based, with planned upgrades to CNNs and active learning planned.
  - Built and hosted with Streamlit for an interactive UI, including instant PDF report generation.
  - Future updates: migration to React/React Native, enhanced model accuracy, and extended user features.

- **AI – Powered Travel Planner | Click to view**   March 2025
  - Developed an AI-based web app to generate personalized travel itineraries using Google Gemini API and Streamlit.
  - Features: toggle based UI, voice search, animated loaders, shareable itineraries, and destination images.
  - Custom input system supports predefined options and free-text/voice input.
  - Upcoming: multi-language support, offline access, and booking platform integration.

- **Email sentiment classifier for business**   December 2024
  - Devised an NLP model to classify emails as Positive, Neutral, or Negative.
  - Used NLTK, spaCy, and TensorFlow for text preprocessing & deep learning (LSTMs, Transformers).
  - Optimized accuracy with word embedding's (BERT, GloVe) & hyper parameter tuning.
  - Model can be used for business purposes to classify customer feedbacks or by any customer service team.

ACHIEVEMENTS

- **Media Club President**   2020 - 2022
  Auxilium Convent School

- **Akhil Bhartiya Hindi Olympiad (Silver Medal – School level | 38th rank in State)**   2019 - 2020
  Silver Zone Foundation

CERTIFICATIONS

- Automation Developer Associate Training – ICT Academy   April 2025
- Master Course in Artificial Intelligence – Great Learning   April 2025
- Application Development in Java - LPU   July 2024
- Cloud Computing - NPTEL   December 2024

EDUCATION

- **Lovely Professional University**   Phagwara, Punjab
  Bachelor of Technology - Computer Science and Engineering   *Since August 2022*
  Favorite Courses: Machine Learning, Data Base Management System, Data Structures and Algorithm, Robotic Process Automation

- **Auxilium Convent School**   Barasat, West Bengal
  Percentage: 81%   *April 2020 - March 2022*
  Favorite Courses: Physics, Chemistry, Mathematics, Computer Science

- **Auxilium Convent School**   Barasat, West Bengal
  Percentage: 87%   *April 2016 - March 2020*