

Aniket Ghosh

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LinkedIn • GitHub • CodeChef • HackerRank

Education

Northeastern University, Boston, MA, USA	Aug 2025 - May 2027
• M.S. in Artificial Intelligence (ML Concentration) - 15% merit scholarship	
• <i>Current Courses:</i> Foundations of AI (Prof. Tahmasebi), Algorithms (Prof. Derakhshan) - maintaining A grade in both	
• <i>Courses Waived:</i> Mathematics for ML & Intro to ML/Pattern Recognition	
Institute of Engineering & Management, Kolkata, India	Jul 2020 - Jun 2024
• B.Tech in CS & Business Systems - GPA: 9.3/10 - Ranked 2nd/180 - Director's Award	

Technical Skills

Programming Languages: Python, C/C++, Java, JavaScript, SQL, HTML/CSS

Machine Learning/AI: TensorFlow, Keras, PyTorch, scikit-learn, YOLOv8, Mask R-CNN, CNNs, Transformers, U-Net

Tools & Platforms: Linux, Git, Docker, AWS, Oracle Cloud, MATLAB, LaTeX, VMware, Jupyter

Specializations: Computer Vision, Deep Learning, Medical Image Analysis, Natural Language Processing

Currently Exploring: LLMs & RAG systems, PostgreSQL query optimization, dimensional modeling (dbt), vector databases (pgvector/Milvus), MLOps pipelines (Airflow/MLflow), LangChain framework

Professional Experience

Jadavpur University, Kolkata, India	Mar 2024 – May 2025
<i>Researcher</i>	

- Developing cell segmentation algorithms under Dr. Kaushiki Roy and Dr. Debotosh Bhattacharjee
- Implemented custom ML algorithm outperforming state-of-the-art models including Mask R-CNN

North-Eastern Hill University (NEHU)	Feb 2023 – Jul 2023
<i>Research Intern (Remote)</i>	

- Developed Indian Sign Language Recognition models under Dr. Arnab Kumar Maji
- Assembled models using Microsoft ASL, MNIST, and Static ISL datasets; advised on dataset quality criteria

Novotel Kolkata, Kolkata, India	Dec 2022 – Jan 2023
<i>Industrial Trainee</i>	

- Facilitated IT system migration from local servers to Oracle cloud infrastructure
- Resolved server issues and gained hands-on experience in cloud technologies and database management

Research Projects & Publications

Leveraging Semi-Supervised Learning for Enhanced Microscopy Image Segmentation	Under Review
• Created custom pipeline for histopathological cell segmentation using ML algorithms which beat Mask R-CNN	

- Paper under review at Journal of Expert Systems with Applications

Intelligent Traffic Sign Detection System	Published at AISC 2024
• Integrated YOLOv8 with custom CNN filtering layer to minimize false positives in cluttered environments	

- Published in Springer's "Information and Communication Technologies" series

Hybrid Network Intrusion Detection System	Under Development - Patent Pending
• Designed network-wide behavioral analysis approach, detecting coordinated threats invisible to traditional methods	

- Developing hybrid DL approach that integrates multiple architectures for enhanced threat detection

Achievements

- **Academics:** Recipient of Director's Award for Top Student Contribution, ranked 2nd in department of 180+ students
- **Departmental Scholarship:** Awarded 15% scholarship for MS in AI at Northeastern University for academic merit
- **4-Star Coder:** Achieved a 4-star rating on CODECHEF with a rating of 1911 [link]
- **Hackerrank:** Achieved the highest level (5 stars) in problem solving, C++, Python, Java, and C [link]

Professional Development & Certifications

Completed Online Courses with Certificates

- **Deep Learning & AI:** Deep Learning A-Z 2024, Machine Learning: NLP in Python V2
- **ML Frameworks & Data Science:** Python for ML & Data Science Masterclass
- **Programming & Algorithms:** Data Structures & Algorithms C++, C++ Programming
- **Python & Web Development:** Python Mega Course, Web Developer Bootcamp 2024
- **Specialized Skills:** High-Performance Computing with Python 3x, Investing in Stocks Complete Course

Leadership & Community Service

The Hope Foundation, Kolkata, India	2006 – Present
<i>Volunteer & Educational Content Developer</i>	

- Designed educational materials and storybooks for underprivileged children
- Coordinated COVID-19 relief efforts, organizing essential supplies delivery to vulnerable communities
- Engaged in charitable support initiatives with dedication since 2006