Contact

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www.linkedin.com/in/i-
anuragmishra (LinkedIn)

Top Skills

Ethics in AI

Artificial Intelligence (AI)

Machine Learning

Languages

French (Limited Working)

Hindi (Native or Bilingual)

German (Professional Working)

English (Native or Bilingual)

Certifications

Introduction to Git and GitHub

R Programming

Python for Data Science and AI

SQL for Data Science

Machine Learning for Everyone

Honors-Awards

SECRETARY I.T MINISTRY

Prime Minister's Scholarship
Scheme Scholar

Scholar of The Macquarie Group
Scholarship from edX!

Publications

Automatic Short Answer Grading
Using a LSTM Based Approach

Advancing Explainability in Neural
Machine Translation: Analytical
Metrics for Attention and Alignment
Consistency

Analyzing the Impact of Climate
Change With Major Emphasis on
Pollution: A Comparative Study of
ML and Statistical Models in Time
Series Data

Anurag Mishra

Graduate Student in Artificial Intelligence | Researcher in NLP,
Explainable AI, Deepfake Detection, and Computer Vision |
Secretary, RIT AI Club | Experienced in Machine Learning | Former
ML Research Intern at DRDO
Rochester, New York Metropolitan Area

Summary

I am a firm believer in the advantages of skill development and
the role it plays specially in the fields related with science and
technology. The more contributive a person is the more he wants to
improve upon himself and wants to develop his skill sets so that his
capacity to be helpful increases . Keeping this as the base line of my
work ideology i want to contribute and lead others in the fields that
interests me.

Experience

DeFake Project
Machine Learning Research Assistant
October 2024 - Present (4 months)
New York, United States

•Researching with Dr. Matthew Wright on advanced research in explainable AI
(XAI) for deepfake detection, focusing on lip-sync deepfakes and saliency map
analysis.

•Exploring multi-modal approaches to XAI, combining neuro-symbolic AI,
attention-based mechanisms, and layer-wise relevance propagation (LRP) for
interpretable decision-making.

•Exploring multi-modal approaches to explainable AI (XAI), integrating
symbolic reasoning with deep learning architectures for transparent and
interpretable detection pipelines.

•Designing experimental pipelines to evaluate explainability across diverse
methodologies, including attention-based mechanisms, gradient-based
saliency, and counterfactual reasoning.

•Building scalable solutions for detecting manipulated media while emphasizing the ethical and trustworthy deployment of AI in content authentication.

•Investigating and mitigating adversarial vulnerabilities in deepfake systems to enhance real-world applicability and system resilience.

Rochester Institute of Technology
1 year 4 months

Machine Learning Research Assistant
October 2024 - Present (4 months)
New York, United States

•Collaborating with the Provost and Senior Vice President for Academic Affairs and Dr. Bartosz
Krawczyk to study adversarial vulnerabilities in large language models (LLMs).

•Investigating the impact of data poisoning and prompt injection attacks on AI fairness and robustness.

•Analyzing bias in human versus AI-generated content by mapping outputs on a bias spectrum using advanced statistical methods.

•Developing frameworks to mitigate bias amplification while ensuring ethical and equitable AI deployment.

•Contributing to research that intersects AI ethics, trustworthiness, and societal impact.

Graduate Student Research Assistant
October 2023 - September 2024 (1 year)
New York, United States

•Spearheading research at the National Technical Institute for the Deaf (NTID) to enhance emergency response capabilities for the deaf and hard-of-hearing communities in Rochester and New York using advanced GIS and machine learning techniques.

•Leveraging GIS, Python, and machine learning algorithms to perform spatial analysis and cluster detection of deaf and hard-of-hearing populations to identify high-priority areas for emergency preparedness.

•Implementing computer vision methodologies to analyze and interpret data, enhancing the accuracy and efficiency of emergency response planning.

•Designing and developing comprehensive coursework and research materials on emergency management tailored for the deaf and hard-of-hearing population, incorporating the latest advancements in AI and GIS.

•Conducting a thorough evaluation of New York's emergency management systems, providing actionable insights and recommendations to improve service delivery for the deaf and hard-of-hearing communities.

•Collaborating with multidisciplinary teams to integrate cutting-edge AI and GIS technologies, driving innovations in emergency response strategies and enhancing community resilience.

IEEE
Student Member
February 2023 - December 2023 (11 months)
India

RailTel Corporation of India Ltd
Data Science Intern
June 2022 - August 2022 (3 months)
New Delhi, Delhi, India

- Conducted a study on Multiple AI-based Solutions to Improve the Co-Ordination of Railway Traffic.
- Conducted Exploratory Data Analysis on Multiple in-house Data Set
- Developed a Model for Efficient distribution of Wifi Resources to improve Railway Wifi Systems

Google Developer Student Clubs, SMIT
AI/ML Lead
September 2021 - July 2022 (11 months)
AI Lead at the Sikkim Manipal Institute of Technology chapter of GDSC.
-Mentored Students on AI/ML Frameworks and Projects
-Collaborated with other developers to Conduct Work Shops

Textify AI
Natural Language Processing Intern
November 2021 - February 2022 (4 months)
Remote

- Worked on Knowledge Graphs and Bidirectional Encoder Representations from Transformers.
- Created the Level up function Resulting in the enhancement of the working of Modules.
- Finetuned the Hugging Face RoBERTa base model to increase the efficiency of Products.
- Performed Web scrapping to Extract, data Set to Train the NLP models.
- Worked with Transformers for Dynamic summarisation of Text.

Defence Research and Development Organisation (DRDO)
Machine Learning Intern
June 2021 - August 2021 (3 months)
New Delhi, Delhi, India

-Created and Researched Decision-making Models using Different Distribution functions
-Improved the efficiency of models by switching to Fuzzy Number based inputs
-Developed Models using Gaussian Membership function and worked with Fuzzy set

Reverbs
1 year 1 month

Executive Lead
July 2021 - July 2021 (1 month)

Worked as Executive Lead of the Debate and Public Speaking Club of College. Mentored students for Debate and Organised Debates and Events.

Executive Team Member
July 2020 - July 2021 (1 year 1 month)

Team member Reverb Club. Executive team member for Conducting Sessions and Moderating Debate.

AIC-SMUTBIF
Editorial Intern
September 2019 - November 2019 (3 months)

Worked as Editorial Intern for Atal Incubation center which is a direct part of Atal Innovation Mission by NIYI AYOG.

Education

Rochester Institute of Technology

Master of Science - MS, Artificial Intelligence · (August 2023)

Sikkim Manipal Institute of Technology
Bachelor of Technology - BTech, Computer Science and Engineering
· (2019 - 2023)

Father Agnel School
SCIENCE STREAM, SCIENCE WITH INFORMATICS PRACTICES(96/100)
AS EXTRA SUBJECT