Abhigya Agrawal

https://www.linkedin.com/in/abhigya-agrawal | https://github.com/abhigya97

EDUCATION

Indiana University, Bloomington, IN, USA

Pursuing PhD in Intelligent Systems Engineering — Aug 2022- May 2026

Master of Science in Intelligent Systems Engineering — 2019 - 2021 **GPA: 4/4**

- Relevant Coursework: Machine Learning, Deep Learning, Graph Analytics, Advanced Natural Language Processing, Scientific Visualization, Data Processing, ML in Computational Linguistics.

Indian Institute of Information Technology, Sonepat, HR, India

Bachelor of Technology in Computer Science and Engineering — 2014 - 2018 **GPA: 8.38/10**

- Relevant Coursework: Data Structures, Design and Analysis of Algorithms, Object Oriented Programming, Database Systems, Operating Systems, Computer Networks, Automata Theory, Compiler Design, Statistical Model for Computer Science, Software Engineering, Web Engineering.

TECHNICAL SKILLS

- **Programming:** C/C++, Python, Java, SQL.
- **Statistics/ML:** PCA, Regression, Regularization, Decision Trees, Random Forests, Clustering, Gradient descent, Probability and Statistics, Graph Theory, Linear Algebra, NLP.
- **Enterprise:** Elasticsearch-Logstash-Kibana, Google Cloud Platform, Amazon Web Services, Microsoft Azure, Paraview.
- **Python Libraries**: Sk-learn, Pytorch, Keras, Tensorflow, Spacy, Flair, Networkx, NLTK, Docker.

WORK EXPERIENCE

Machine Learning Engineer Intern — **Sep 2021 – June 2022**

- Oversaw the back-end development and was responsible for updating, upgrading, and maintaining the machine learning model and deploying the code on AWS cloud platform for commercial use at Deepword.
- Enhanced the code performance by optimizing memory usage and processing time.
- Containerized the machine learning model for easy portability using Docker.
- Updated and managed the dependencies in the code using poetry.

Data Science Intern — **Sep 2021 – March 2022**

- Researched, compiled, and experimented with different algorithms and methods to implement a named entity linking system using graph and semantic embeddings at Accern.
- Worked on the creating meaningful word embeddings from company's database for named entity recognition.

Research Assistant — **Aug 2020 - April 2021**

- Collaborated on a paper to capture formation and evolution of communities in graph data using Graph Convolution Neural Networks. Important underlying patterns can be learnt by efficiently detecting communities in real world networks.
- Worked on developing, testing, and fine-tuning algorithms on different types of network datasets (airports, emails, biological, Wikipedia and citation) using Pytorch Geometric.
- Coded some aspects of sparse graph convolutions, resulting in a faster run time.

PUBLICATIONS

- Md. Khaledur Rahman, Abhigya Agrawal, and Ariful Azad. 2022. Markovgnn: Graph neural networks on markov diffusion.