Sahil Gupta

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EDUCATION

BS, Computer Science: **University of Massachusetts Amherst, USA** **GPA:** 3.84 / 4.0

- **Distinctions:** Dean's List- Fall 2019, Spring 2020, Fall 2020, Chancellor's Award Scholarship- $14,000 p.a.
- **Organizations:** UMass ACM, UMass Product Management Club
- **Coursework:** Search Engines, Mobile Health Sensors, Artificial Intelligence, Algorithms, Probability Theory, Programming Methodology, Computer Systems Principles, Discrete Mathematics **Aug 2019 - May 2023**

High School Diploma: **Delhi Public School R.K.Puram, India** *Graduation:* **April 2019**

WORK EXPERIENCE

Software Engineer Intern **KPMG** **May 2021 - Aug 2021**

- Developed a web scraper in python, using Beautiful Soup that scraped hindustantimes.com for news articles based on certain keywords provided
- Implemented newspaper library to apply NLP on web pages to summarize the articles.
- Implemented machine learning algorithms on different data sets along with hyper tuning for higher efficiency
- Referred research papers and developed approaches towards improving network traffic flow
- Prepared and presented proposal for investment in Data Economy of India for a client.

MAJOR TECHNICAL PROJECTS

- **Dhwani**: A python program which detects emotion using Decision Tree with an accuracy of 80%.
- **PageRank**: Implemented PageRank algorithm in Java for application on a set of 1.4 million URLs and analyzed the result of inlinks count versus PageRank score of 75 top-ranked links **Sep 2021**
- **Currency Converter**: Built a currency converting mobile application in Kotlin that converted a given amount into different currencies based on choice **Sep 2021**
- **K Nearest neighbors:** Implemented K Nearest Neighbor Algorithm on Breast Cancer dataset in python and attained an accuracy of 95%. Applied elbow method to find the optimal value of K **June 2021**
- **K Means:** Implemented K Means Algorithm on Iris dataset with an accuracy of 90%. Applied elbow method to find the optimal no. of clusters. Libraries used Numpy, Pandas and Sklearn **May 2021**
- **Astrominimax:** Developed an AI program in python that could play Connect 4 game against a player or a computer. It computed the optimal moves to the winning goal state using adversarial search. Implemented Alpha-Beta Pruning and finite look ahead Minimax to reduce the time and space complexity **March 2021**
- **Jerry:** An 8-puzzle game solver in python that used search strategies such as Breadth-first, Uniform-cost, Greedy Best-first, and A* to compute the most optimal path to the goal state using different heuristic functions such as Manhattan distance, number of misplaced tiles, tile displaced value squared **Feb 2021**

ACADEMIC EXPERIENCE

Computer Science Peer Tutor **University of Massachusetts Amherst** **Sep 2020 – Dec-2020**

- Performed one-on-one tutoring sessions for Data Structures course
- Conducted weekly meetings with tutees and mentored them on exam preparations, topic doubts, project queries
- Explained implementation of different data structures in Java for core understanding of topics

LEADERSHIP ACTIVITIES

Captain, Badminton Team **University of Massachusetts Amherst** **Sep 2021 - Present**

- Coached & led the team to 2nd position in Yonex North-Eastern Collegiate Team Championship Oct 2019

Secretary, Fresh CICS **University of Massachusetts Amherst** **Sep 2019 - May 2020**

- Hosted events to enable students to interact with other students and faculty of Computer Science at UMass
- Organized workshops with Google Developer Student's club on APIs, building startups, Git etc.

Student Council **Delhi Public School R.K.Puram** **Apr 2017 - Mar 2018**

- Conducted cleanliness drives under "Swachh Bharat Abhiyaan" in 5 Municipal Schools across Delhi and demonstrated importance of hygiene and clean environment

TECHNICAL KNOWLEDGE

Languages- Python, Java, JavaScript, Kotlin, C, C++, HTML, CSS, XML

Technologies/Frameworks- Git, App Development, SQL, Machine Learning, Search Engine, Artificial Intelligence

OS- Linux