

# Aditi Gulati

Bachelor of Technology in Computer Science Engineering Indira Gandhi Delhi Technical University For Women +91-9968794094 aditigulaticse@gmail.com GitHub | Website linkedin.com/in/aditi-gulati

### EDUCATION

Degree	Institute	CGPA/Percentage	Year
Bachelor of Technology (CSE)	Indira Gandhi Delhi Technical University For Women	9.15	2021-2025
Senior Secondary (CBSE)	Bal Bharati Public School, GRH Marg	97.2%	2021
Secondary (CBSE)	Bal Bharati Public School, GRH Marg	95.4%	2019

#### EXPERIENCE

### • Engineers India Limited | Vocational Trainee

June 2023 - July 2023

Employee Database Management System using MVC

Delhi, India

- Leveraged Big Data analytics and OpenCV to develop an employee attendance system, automating the employee data
- Acquired proficiency in software development methodologies, databases, SQL, ASP.NET MVC, Visual Studio
- Designed and implemented a user-friendly interface using React for data storage and retrieval, enhancing the efficiency of HR operations and ensuring data integrity

#### • Omdena Edmonton | Data Analyst

June 2022 - July 2022

Predicting Housing Affordability of Canada's metropolitan region

Remote

- Conducted in-depth predictive analysis using Python, data mining, and quantitative analysis to assess the future trajectory
  of housing affordability
- Developed a comprehensive heat-zone map through data visualization, highlighting regions with worsening housing affordability trends
- Leveraged open-source data and applied advanced predictive analytics to gain a deep understanding of Canada's housing market, while identifying key factors influencing housing affordability, contributing to informed decision-making for addressing this critical issue

### • Infosys | Software Development Intern

February 2022 - May 2022

Wingspan User Importer

Bengaluru, Karnataka, India

- Collaborated to implement a critical user management system, using Python, SQL, Kafka, and Apache Spark for Big Data
- Synchronized client's user data with Wingspan's platform, allowing new users, updating existing users, and managing access for specified users based on client's criteria
- Demonstrated adaptability by creating an extensible solution assuring a seamless integration for future enhancements, contributing to the ongoing success of Infosys' Wingspan project

### **PROJECTS**

## • Swarm Intelligence

Python, Scikit Learn, OpenCV, Deep Learning, Flask

Artificial Intelligence Project

GitHub

- Developed algorithm for optimal task distribution and path planning in multi-agent multi-task systems
- Used K-Means clustering to assign tasks to agents according to proximity and threading for synchronous movement
- Used fast solutions to the Travelling Salesman Problem to decide the order of traversal for multi-objective tasks
- Implemented A\* Path Finding algorithm from scratch to find optimal path between two objectives

### • Dominant Colour Detection

Python, Scikit Learn, NumPy, OpenCV, Matplotlib, Pandas, Seaborn

 $Project\ Jupyter\ Notebook$ 

 $\mathbf{GitHub}$ 

- Implemented K-means clustering for dominant color extraction in images, and optimized convergence speed
- Performed image segmentation, and analyzed image content for efficient color extraction for image processing

## • Voice Notes

HTML, CSS, JavaScript, Web Speech API, SpeechRecognition API

Voice Notes Web App

 $\mathbf{GitHub}$ 

- Web App to create and edit new notes by voice command or by typing
- It allows users to create, edit, save, listen to, and delete notes, providing a comprehensive note-taking experience.

## • The Weather App

 $HTML,\ CSS,\ JavaScript,\ OpenWeather\ API$ 

Weather App Website

GitHub

- Developed a dynamic Weather Web App utilizing the OpenWeather API, offering real-time weather data, dynamic backgrounds, and user-friendly alerts for accurate city input

### ACHIEVEMENTS

- JP Morgan Code for Good 2023: Addressed real-world challenges for social impact in a 24-hour Hackathon
- Uber She++ 2023: Selected among top 75 girls across the nation from the 19 best engineering colleges in the country
- Gold Microsoft Learn Student Ambassador: Empowering peers with tech expertise through Workshops and Tech-Talks
- 8x Microsoft Azure Fundamentals Certified: AZ-900, AI-900, DP-900, PL-900, MS-900, MB-910, MB-920, DP-500
- Ideate 'N' Solve (Devcation 2022 Hackathon): Jury Award by Google Developer Student Club
- Google HASHCODE 2022: Global rank 1133, All India Rank 241
- IIT JEE MAINS 2021: Secured top 2 Percentile among 1 million candidates

### RESEARCH EXPERIENCE

• Indira Gandhi Delhi Technical University For Women | Research Intern

Faculty Advisor: Dr. D. K. Tayal

Python, Feature Extraction, Multi-agent Systems, HCI, NLP, Big Data, NLTK, Spacy

- Worked on the Detection of life threatening diseases by examining the human genome in Microarray data using distributed implementation of algorithms funded by Department of Science and Technology, and wrote the journal titled "Binary Class Covote Optimisation Algorithm with Levy Flight Mechanism for Feature Selection."
- Also worked on the Summer Internship Project in the Department of Computer Science and Engineering, IGDTUW, and wrote the journal titled "Evaluating Inconsistency in Textual and Speech sentiments."
- Research interests: Human-Computer Interaction, Computer Vision, Machine Learning, Data Analysis and Visualization, Data Mining, Big Data Analysis, Optimization Algorithms, Generative Adversarial Networks, Natural Language Generation, Natural Language Understanding, Feature Engineering, Sustainable Artificial Intelligence, Predictive Modeling, Data Ethics

### SKILLS

- Programming/Tools: Python, C/C++, SQL, HTML, CSS, JavaScript, LaTeX, Git, GitHub
- Courses: Software Engineering, Database Management Systems, Object Oriented Programming, Data Structures and Algorithms, Operating System, Operation Management, Data Analytics, Big Data, Artificial Intelligence, Computer Vision
- Soft Skills: Problem Solving, Analytical thinking, Interpersonal skills, Research, Project Management, Strategist, Teamwork, Collaboration, Avid learner, Proficient writer, Organized and Detail oriented, Adaptability and continuous learning

### LANGUAGES

- English: Native or Bilingual Proficiency
- Hindi: Native or Bilingual Proficiency
- German: Professional working proficiency