

ADITYA KUMAR SINGH

✉ Email 🌐 Portfolio 🐙 GitHub

EDUCATION

Indraprastha Institute of Information Technology, Delhi (IIIT Delhi) <i>B.Tech in Computer Science and Applied Mathematics</i>	2021 – 2025
NDMC Navayug School, Sarojini Nagar <i>CBSE, 12th Board, Non-Medical w/ Computer Science</i>	2018 – 2019

TECHNICAL COMPETENCIES

Languages Python, C/C++, Java, SQL, HTML, CSS, JavaScript, TypeScript	Key Courses Data Structures & Algorithms, Operating Systems, OOPS, Database Management Systems
Databases MySQL, PostgreSQL, MongoDB	Technical Electives Computer Networks, Distributed Systems, Network Security
Technologies React, Node.js, Express.js, React Native, TailwindCSS, Git, Firebase, Flask	
Frameworks libGDX, Pygame, WordPress, Vite	

ACHIEVEMENTS

- Ranked **1253 out of 30,000+** participants in Codeforces Division 2 Contest
- Solved **500+ Data Structures and Algorithms problems** across LeetCode and CodeChef
- Certified in **Competitive Programming (CP1/CP2)** and **Haskell** by University of Helsinki
- Selected among **4 students nationwide** for Nobel Prize Series conference in Goa

WORK EXPERIENCE

Frontend Developer Intern – Unsaid Talks (EdTech Startup)	Feb 2025 – May 2025
<ul style="list-style-type: none">– Led frontend development for AEDP (Apprenticeship Embedded Development Program) with cross-functional team collaboration– Designed and developed responsive landing page using React, TypeScript, Tailwind CSS, and Vite– Collaborated with backend and content teams to ensure seamless user experience and UI consistency– Contributed to website architecture planning, component structuring, and deployment using Graphy and Frappe CMS– Integrated WordPress backend with modern frontend technologies for content management	
Tech & Content Intern – Vidyaichuk (EdTech Startup)	Aug 2024 – Dec 2024
<ul style="list-style-type: none">– Built complete edtech platform website using WordPress hosted on Amazon Web Services LightSail– Developed separate React-based course content section and integrated with WordPress via embedded links– Optimized website performance and implemented responsive design for mobile and desktop platforms– Curated content and curriculum focused on core computer science and industry-relevant topics– Managed deployment pipeline and server configuration for production environment	

PROJECTS

Weather App (Node.js + Express)	Recent
<ul style="list-style-type: none">– Built full-stack weather application that fetches real-time data using WeatherAPI with user favorites functionality– Implemented three REST API routes using Express: <code>/weather/:city</code>, <code>/user/favorite</code>, and <code>/user/favorite (GET)</code>– Integrated WeatherAPI to fetch live weather information including temperature, feels-like, and conditions– Used Node.js fs module to read/write user preferences to JSON file for persistent storage– Designed responsive frontend with HTML, CSS, and vanilla JavaScript; deployed on Render Node.js, Express.js, WeatherAPI, HTML, CSS, JavaScript, REST API	
Flood Prediction Using Machine Learning	Aug 2024 – Dec 2024
<ul style="list-style-type: none">– Built flood probability prediction system using 1.8M+ data entries and 20+ environmental factors– Trained multiple machine learning models including MLP, SVM, and Random Forest; achieved R² score of 0.86 with MLP– Optimized model performance through hyperparameter tuning and feature engineering techniques– Deployed predictive system with Flask GUI for real-time flood probability assessment– Implemented data visualization using Matplotlib and Pandas for model performance analysis Python, scikit-learn, MLP, Flask, Pandas, Matplotlib, Machine Learning, AWS	
Java and Python Game Development – Tank Stars & Hungry Ghost Games	Academic Project
<ul style="list-style-type: none">– Developed 2D games in Java with libGDX framework, applied OOP design patterns and UML modeling– Created 'Hungry Ghost' in Python using Pygame where players control ghost to collect food within time limit	

- Implemented game physics, collision detection, and scoring systems using object-oriented programming
 - Integrated Pygame for animations, sound effects, and built-in performance testing tools
- Java, libGDX, Python, Pygame, OOP, Game Development, UML**

Full-Stack E-commerce Website

Previous

- Built complete online store using **PHP, JavaScript, CSS, and XAMPP** with authentication and catalog features
 - Integrated **MySQL database** using phpMyAdmin and implemented complete product order flow
 - Developed shopping cart functionality, user authentication, and product categorization system
 - Implemented secure payment processing and order management features
- PHP, JavaScript, CSS, MySQL, XAMPP, Full-Stack Development**

Assembly Language Simulator

Academic Project

- Developed assembler and simulator for executing basic assembly code, demonstrating low-level programming skills
 - Implemented instruction parsing, memory management, and register operations
 - Created debugging features and step-by-step execution visualization
- Assembly Language, Systems Programming, Computer Architecture**

POSITIONS OF RESPONSIBILITY

Teach Like a Friend x Vidya Vikas – Volunteer Educator

Aug 2024 – Dec 2024

- Taught science and mathematics to government school students in grades 8-10
- Delivered subject-focused lessons in computer science, physics, and mathematics to grade 12 students
- Contributed to educational upliftment and academic mentorship in underserved communities
- Developed customized learning materials and assessment strategies for diverse learning needs