PRASAN KUMAR

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EDUCATIONS

Amity University Uttar Pradesh

B.Tech in Computer Science & Engineering

Expected Graduation, June 2025

• **CGPA:** 7.39/10.00

• **Related Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Database management system, Operating System, Machine Learning, Artificial Intelligence.

PROJECTS

Horizon Banking App with Finance Management

[Github:Link]

Tech Stack: Next.js, Node.js, Appwrite, Plaid, Dwolla

- Developed a comprehensive finance management dashboard aggregating data from 6+ bank accounts to improve financial insights.
- Implemented real-time transaction updates and inter-user money transfers, enhancing financial visibility and user convenience.
- Focused on security-first development and intuitive user interfaces using Next.js and Node.js, ensuring a seamless and secure user experience.

HealthPredict: AI-Powered Multi-Disease Prediction System

[Github:Link]

Tech Stack: Next.js 15, React 18, TensorFlow.js, Clerk Auth, Gemini API, TypeScript, HTML5, CSS3

- Developed a privacy-first web application that predicts the risk of diabetes, heart disease, and kidney disease using client-side neural networks, ensuring complete user data privacy with TensorFlow.js.
- Functionality: Integrated three disease-specific models with up to 91.2% accuracy, optimized for in-browser execution, eliminating the need for server-side data transmission.
- Highlights: Engineered an AI-powered chatbot using Google's Gemini API for real-time health education and integrated a modular architecture for multi-disease prediction and future scalability.
- Security: Incorporated secure Clerk authentication, enforced HTTPS, and stored all prediction data locally to maintain strict user privacy and HIPAA-like compliance.

PUBLICATIONS

Prasan Kumar, Dr. Vineet Singh "Multi-Disease Prediction System: An Integrated Neural Network Approach for Heart Disease, Diabetes, and Kidney Disease Risk Assessment," Journal of Informatics Electrical and Electronics Engineering (JIEEE), 2022. (Accepted, publication in progress)

[Download Paper]

SKILLS

Programming Languages: C++, JavaScript

Frameworks & Libraries: Next.js, ReactJS, Node.js

Databases: MySQL, Appwrite

Testing & Automation: Playwright, Selenium

DevOps & Tools: Git, GitHub, VS Code, CI/CD, Jira

Soft Skills: Problem-Solving, Critical Thinking, Teamwork, Time Management, Written Communication

ACHIEVEMENTS & ACTIVITIES

- **Problem Solving:** Solved 150+ LeetCode and GeeksforGeeks problems with a focus on medium difficulty levels, improving data structures and algorithms expertise.
- **Google Developer Groups UP**(*Coordinator & Volunteer*): Volunteered and organized an event of 90+ members on women's day empowering women techmakers.