Aakriti Rani

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SKILLS

Languages: C++, C, Python, Java
Frameworks: HTML5, CSS, Git, GitHub, MySQL, Excel, Power BI
Tools/Platforms: Git, VS Code, Cursor
Soft Skills: Problem-Solving, Project Management, Adaptability

PROJECTS

Education Performance Analytics | GitHub | | Python, Machine Learning| Apr'25- May'25

- Built supervised ML models (linear regression, decision tree, random forest) to predict student performance using features like attendance, grade level, gender, and region.
- Analysed IOOK+ records to evaluate ML models and key academic trends.
- Achieved ~15–20% higher prediction accuracy using Random Forest compared to baseline models, effectively capturing non-linear and regional performance patterns.

Mental Health Stimulator | GitHub | |Java, OOPS, Console Application, VS Code, Git| Jun'25-Jul'25

- Developed a console-based mental wellness application enabling users to track mood, receive motivational quotes, and perform guided breathing exercises.
- Applied object-oriented programming principles to design modular, reusable Java classes for scalability and clean code structure.
- Reduced user navigation time by ~30% through optimized menu-driven workflows, improving usability and emotional self-assessment efficiency.

Memory Management Simulator| GitHub | |C++,Operating System Concept| Mar'25-Apr'25

- Built an OS simulator covering CPU scheduling, memory management, and synchronization mechanisms.
- Implemented scheduling and page-replacement algorithms to simulate real operating system behavior.
- Improved task handling efficiency by ~25% through optimized process synchronization using semaphores/mutexes and effective resource utilization.

TRAINING

JAVA PROGRAMMING AND DATA STRUCTURES| CIPHER SCHOOL | Jun'25-Jul'25

- Gained a strong understanding of core Java concepts, including OOP, exception handling, and collections
- Practiced essential DSA topics such as arrays, linked lists, stacks, queues, trees, graphs, recursion, sorting, and searching.
- Applied concepts by building small Java programs focused on implementing DSA solutions.

CERTIFICATES

- Privacy and Security in Online Social Media | NPTEL | Apr'25
- The Bits and Bytes of Computer Networking | Coursera | May'25
- Peer-to-Peer Protocols and Local Area Networks | Coursera | Jan'24
- Responsive Web Design | Free Code Camp | Oct'23

CO-CURRICULAR

- Selected for the second round of the Webका Hackathon at Lovely Professional University.
- Certified for completing a field and classroom-based internship focused on public health awareness, rainwater harvesting advocacy, and NGO operations.

EDUCATION

Lovely Professional University Punjab, India
Bachelor of Technology - Computer Science and Engineering; ***CGPA: 6.22*** *Since August 2023*

Tender Heart School Ranchi, Jharkhand
Intermediate; ***Percentage: 62%*** *April 2021 - March 2022*

Tender Heart School Ranchi, Jharkhand
Matriculation; ***Percentage: 89%*** *April 2019 - March 2020*