Vaibhav Sharma

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SKILLS

Programming/Scripting Languages: C++, C, Java, MySQL, PostGres, NOSQL, Python, JavaScript, MATLAB, GIT, REACT, Neo4J
Web Based technologies and Development: HTML5, CSS3, PHP, Data Science, Operating Systems, AI/ML, Data Structures and Algorithms, DynamoDB
Frameworks and tools: Wireshark, AWS, Cloudshell, EC2, Lambda Function, IC3, Cloudwatch, API Gateway, Docker, Software Development Lifecycle

EXPERIENCE

Software Development Co-op
Rochester Regional Health, NY, USA   *06/2024 – Present*
- Designed and developed a responsive web application using React to automate nurse competency approval, streamlining processes for 5000+ nurses across 12 hospitals, saving over 20 hours and 120 pages per nurse.

Teaching Assistant -> Advanced Object-Oriented Programming (using Java)
Rochester Institute of Technology, Rochester, NY, USA   *08/2023 – 06/2024*
- Guiding 50+ students in Java and OOPS concepts, resulting in a 20% increase in average assignment grades over the semester, while delivering tailored lessons and assessments to enhance understanding of Java principles.
- Provided constructive feedback on code quality, efficiency, and adherence to requirements, ensuring students' continuous improvement in Java programming skills.

Graduate Assistant
Rochester Institute of Technology, Rochester, NY, USA   *08/2023 –05/2024*
- Evaluated and analyzed data for MCAS & DDI Tutoring, achieving a 30% improvement in program effectiveness, while overseeing a team of 10+ peer tutoring leaders to increase student engagement by 25%.
- Collaborated on team-building activities, resulting in a 100% increase in participation in the Peer Course Consultant program.

Retail Systems Analyst
Rochester Institute of Technology, Rochester, NY, USA   *06/2023 – 08/2023*
- Mentored in managing online systems for 7+ RIT Dining facilities, ensuring PCI DSS compliance, and resolving incidents.
- Managed tasks within InfoGenesis, OnDemand Ordering, and Yellow Dog Inventory of 2000+ items to streamline operations.

Software Development and Research Internship
The LNM Institute of Information Technology, Jaipur, India,   *05/2020 – 07/2020*
- Implemented a Linear Regression Model on the Covid dataset of Chicago with 10,000+ entries.
- Designed the relationship between the number of Covid tests and positive cases, achieving an impressive accuracy of 87%.

Software Development Internship
ACPL Systems Pvt. Ltd, Gurgaon, India,   *05/2019 – 07/2019*
- Constructed a packet sniffer on 5 computer network protocols for "Attack Fence", reducing network security breaches by 30%.
- Led a team of 5 to research Cyber Security Compliance, resulting in recommendations that revamped system security by 25%.

EDUCATION

Rochester Institute of Technology   **Rochester, NY**
Golisano College of Computing and Information Sciences   *May 2025*
Master of Science, Computer Science   GPA: 3.7/4
Coursework: Artificial Intelligence, Machine Learning, Big Data Analytics, Cloud Computing, Non-relational Data analysis

The LNM Institute of Information Technology   **Jaipur, India**
Bachelor of Technology, Computer Science   *September 2021*
Coursework: Advance OOPs, Algorithms, Computer Networks, Operating System, Databases, Distributed Systems

PROJECTS

Prototype Of Drowsiness Detection | (Python, OpenCV, dlib, Classification)
- Executed a real-time Drowsiness Detection prototype with optimal EAR (0.267) & MAR (0.585) thresholds.
- Revamped facial image capture in driving scenarios, achieving 89% accuracy with a pre-trained model & ROC analysis.
- Incorporated 3 alert system with visual & auditory cues for communication of drowsiness indicators to the driver.

IMDB Data Analysis | (Python, PostgreSQL, MongoDB, Apache Spark)
- Assessed a 21M-record dataset, improving query performance by 70% with key and materialized view strategies.
- Leveraged k-means clustering and Apriori algorithm for 20% better decision-making and transitioned relational database to NoSQL, enhancing data accessibility by 30% and retrieval efficiency by 25%.

NYC Crash Data Analysis | (Python, Pandas, Geopandas, Folium, K-means Clustering)
- Analyzed Brooklyn's traffic data from 2019-2020, identifying accident hotspots and trends using geospatial analysis and K-means clustering.
- Created interactive Folium maps to visualize accident data, conducting detailed temporal analysis for informed decision-making.

Providing SaaS using Docker containers over the cloud | (AWS, Docker, Firefox)
- Generated Firefox as different instances to different customers using the Dockers containers making it scalable and easily modifiable.

AWARDS
- Inaugural RIT Outstanding Graduate Student Award Nominee