

Rana Muhammad Mehtab Nasir

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EDUCATION AND HONORS

Georgia Institute of Technology Atlanta, GA
Bachelor of Science in Computer Science
Dean's List

December 2025

WORK EXPERIENCE

NETSOL Technologies | Lahore, Punjab, Pakistan

AI/ML Intern

June 2024 - July 2024

- Developed a cutting-edge resume analyzer leveraging Grok, Lang Chain, and Llama that evaluates and ranks resumes based on predefined job criteria such as skills and experience.
- Conducted rigorous testing on over 1,000 resumes, resulting in the identification of 5 top candidates, with 2 successfully hired.
- Implemented a ranking algorithm to match resumes to job descriptions, improving candidate filtering by 40%.

Georgia Institute of Technology | Atlanta, GA

Undergraduate Computer Vision Researcher

October 2023 - Present

- Engineered a machine vision model in Python to detect critical features at intersection crossways using supervised learning techniques, achieving a detection accuracy of 60%.
- Collaborated on enhancing OpenStreetMap data to implement advanced graphing algorithms, identifying optimal wheelchair-accessible paths within Gwinnett County, Georgia.
- Continuously refining algorithms and models, aiming to increase detection accuracy by 25% and reduce pathfinding computation time by 20%

PROJECTS

Autonomous Vehicle Simulation | *HTML, CSS, JavaScript, Three.js, TensorFlow.js*

July 2024

- Built a web-based simulation for designing and testing autonomous vehicles, using physics-based dynamics and AI algorithms, with a 3D environment created in Three.js.
- Integrated TensorFlow.js to simulate autonomous driving, enabling real-time analysis of 50+ vehicle scenarios.
- Designed an intuitive interface allowing users to modify and analyze vehicle performance under different conditions, projected to enhance research efficiency by 30%.

Project Management Assistant | *React.js, Node.js, PyTorch, SQLite, NLP Libraries*

June 2024

- Developed an AI-powered task management platform using React and Electron, enabling real-time collaboration for up to 10 users and offline functionality with SQLite and Firebase.
- Implemented NLP for natural language task creation and AI-driven insights using Hugging Face and TensorFlow, increasing user productivity.
- Integrated WebSockets for real-time task updates and Firebase Auth for secure user authentication.

Neighborhood Tool Sharing App | *React Native, Node.js, Firebase, Google Maps API*

May 2024

- Developing a cross-platform mobile app for local communities to lend and borrow tools, using React Native for the frontend and Firebase for backend data management.
- Implementing geolocation features with Google Maps API for real-time location-based tool listings and requests within a 5-miles radius
- Building an intuitive calendar system for managing tool availability and scheduling.
- Integrating Firebase Cloud Messaging to notify users of new tool listings and borrow requests.

Dynamic Puzzle Level Generator | *Unity, C#, JSON*

January 2024

- Built a system that automatically creates unique and increasingly challenging puzzle levels based on difficulty parameters.
- Applied AI algorithms to adjust puzzle layouts in real-time, ensuring varied gameplay and preventing content repetition.
- Enhanced player engagement by generating levels tailored to individual performance and skill progression.

TECHNICAL SKILLS

Languages: Java | Python | C | C++ | HTML | CSS | JavaScript | Dart | SQL

Frameworks & Tools: Flutter | React.js | Node.js | Express | Unity | TensorFlow | PyTorch | Docker | Kubernetes | Android Studio

Others: MongoDB | PostgreSQL | SQLite | Firebase | Git | REST | API Integration | Machine Learning | WebSockets | CI/CD (Jenkins, GitHub Actions) | Cloud Services (AWS, GCP, Azure) | Responsive Design