NEHA KHANAM PATHAN

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SUMMARY: Passionate software engineer with a strong foundation in full-stack development, and intelligent automation. Delivered high-impact solutions for global clients like BMO and Juta, while building robust, scalable systems.

EXPERIENCE

Software Engineer — Tata Consultancy Services (Pune, India)   Jan 2023 - Jul 2023

- **Bank of Montreal(BMO) Client Project :** Designed and built AWS-based systems for BMO, creating scalable storage solutions to track loan applications, generating **$6M** in revenue.
- Developed and optimized application features using AWS Lambda, Node.js, and relational databases, improving efficiency and reliability through robust testing and seamless execution.
- Directed a successful data migration from a legacy Tibco-based system to AWS, maintaining data integrity and optimizing performance for multi-tiered systems. Collaborated with cross-functional teams in an agile environment.
- Developed and executed test cases using Chai & Mocha, achieved **90%+** test coverage to ensure robust functionality.

Software Development Engineer — AIQoD (Pune, India)   Sept 2021 - Nov 2022

- **Juta and Company Project:** Diagnosed and improved the accuracy of PDF-to-Word conversion algorithms, reducing errors by **25%** through robust testing and iterative enhancements, ensuring high-quality document processing.
- Leveraged a Rule Engine and MongoDB to optimize data handling and storage, driving a **20%** increase in processing speeds and a **40%** reduction in system downtime through efficient system enhancements and automation.
- **Ideas To Impacts:** Developed automated workflow systems on an RPA platform, streamlining task assignment from project managers to team leads and annotators; integrated Label Studio to enhance tracking and efficiency.
- Orchestrated a robust file management solution using Microsoft Azure, automating file permissions for annotators and implementing dynamic revocation upon task completion. Ensuring data integrity and operational security.

EDUCATION

Master of Computer Science — Chicago State University   Aug 2023 - May 2025

Bachelor of Engineering (Electronics and Telecommunication)   Aug 2016 - Nov 2020
Dr. Babasaheb Ambedkar Marathwada University

TECHNICAL SKILLS

Languages: C, C++, Perl, Python, C#, Java, JavaScript, TypeScript.
Web & Frameworks: HTML/CSS, Node.js, React.js, Angular.js, HTTP, REST APIs, Web3, Microservices Architecture.
Cloud & DevOps: AWS, Azure, Google Cloud Platform(GCP), Jenkins, Docker, Kubernetes, CI/CD pipelines, GitHub.
Databases: SQL, MySQL, PostgreSQL, MongoDB, NoSQL. **Tools:** Git, Jira, Visual Studio Code, Postman, n8n.

PROJECTS

AI-Driven Event Scheduling Agent — (OpenAI API for NLP, Telegram Bot API, Google Calendar API, n8n)

- Developed an AI-powered scheduling assistant using n8n, automating calendar event creation from text/voice messages. Integrated NLP for text and voice input processing, ensuring seamless user interaction and efficient event management.

Full-stack E-commerce web application — (React, Node.js, Express, MongoDB Atlas)

- Developed a dynamic MERN-based e-commerce platform featuring secure authentication, an intuitive UI, and a robust backend API. Implemented key functionalities like product management, category filtering, cart handling, payment integration, and user/admin dashboards to enhance the shopping experience.

Computer Science and Mathematics Learning Assistance - under Prof. Elaine Khaswneh Chicago State University

- Automated Learning Assistance Center calendar updates by syncing internal schedules with Google Sheets, improving visibility and reducing manual effort. Collaborated with students to clarify core computer science and mathematics concepts, enhancing learning through peer-assisted sessions and interactive problem-solving.

- **Leadership skills:** Presented project at the (Feb, 2025) ILSAMP Spring Symposium. Active Member of Computer Science Club, engaging in tech and networking events.
- **Awards:** Recognized by Chicago State University for academic excellence. Represented Chicago State University for CyberForce Competition, by the U.S. Department of Energy (Nov, 2024).