Aman Soni

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EDUCATION

University of Michigan   Ann Arbor, MI
Master of Science in Computer Science and Engineering   Aug 2025 – Dec 2026
Relevant Coursework: Advanced Scalable Systems, Algorithms, AI Foundations

SRM Institute of Science and Technology, Kattankulathur   Chennai, India
Bachelor of Technology in Computer Science and Engineering; CGPA: 9.51/10   June 2018 – May 2022

WORK EXPERIENCE

Aditya Birla Capital Ltd.   Mumbai, India
Software Developer   July 2023 – July 2025
- Led development and management of personal loan web applications, streamlining processing of 700 loans daily with USD 3,000 typical loan amount.
- Engineered RESTful APIs using Flask to integrate modules like Bureau Enquiries, Fraud Checks, KYC Verification, E-Mandate, and Disbursal, automating checks and reducing operational turnaround time by 25%.
- Contributed to developing Data Science modules using Python packages like NumPy, Pandas, and Scikit-learn to automate customer eligibility decisions per company policies, and imputed personalized loan offers based on bureau data analysis.
- Built a GraphQL-based MIS portal for generating customer onboarding reports, enabling 15+ business stakeholders to access real-time data and optimize the marketing funnel—contributing to a 10% increase in successful loan applications.

Graduate Engineer Trainee   July 2022 – June 2023
- Awarded for developing STP REST APIs to retrieve financial documents from the LMS and deliver them via Email and SMS, using RabbitMQ for asynchronous processing—reducing manual effort and enabling 60,000+ monthly deliveries.
- Executed a streamlined data pipeline to migrate 10+ on-premise database tables to AWS RDS, leveraging stored procedures, SFTP, and Lambda triggers to automate daily transfers and reduce manual effort.

Anheuser-Busch InBev   Bengaluru, India
Automation Intern   Aug 2021 – Jan 2022
- Designed and deployed automated bots using Blue Prism to handle report generation, error detection, and SAP updates based on predefined logic, saving 3 FTEs by eliminating manual tasks and streamlining end-to-end processing.
- Designed a Power BI dashboard visualizing brand-specific sales data across 25+ cities, enabling efficient data-driven decision making for sales managers and analysts and contributing to a 12% increase in regional sales.

PROJECTS

MUSE (Machine enhanced User Sound Experience)
- Developed "MUSE" – an AI system leveraging Demucs, a deep learning model for music source separation (vocals, drums, bass, instruments) achieving 90%+ SDR using Python, PyTorch, Librosa.
- Built an end-to-end interactive platform integrating Flask, React, and PostgreSQL to allow users to upload audio, visualize separated tracks, and receive personalized song recommendations generated through content-based and user-feedback algorithms, improving recommendation relevance by 30% in testing.

Bank Loan Default Prediction using Ensemble Machine Learning
- Developed a bank loan default prediction system using Bagging ensemble machine learning techniques to forecast loan repayment probability and mitigate banking risk.
- Experimented with 5 classification algorithms to train the model and compare performance: Logistic Regression, K-Nearest Neighbors, Support Vector Machine, Decision Tree and Random Forest.
- Random Forest classifier achieved 81.04% accuracy, outperforming other models—including the widely used Decision Tree classifier with 73.10% accuracy—in financial institution risk assessments.

SKILLS

- **Languages**: Python, SQL, C++, C, Bash, JavaScript, TypeScript
- **Frameworks**: Flask, Falcon, Django, Fast API, Node, React, PyTorch, Scikit-learn, Keras, OpenCV, Pandas, NumPy
- **Cloud & Databases**: AWS Services (Dynamo DB, RDS, S3, Lambda, EC2), MySQL, PostgreSQL, MongoDB
- **Platforms & Tools**: Linux, Docker, GIT, JIRA, Jenkins, Hugging Face, Kubernetes, Redis, RabbitMQ, Supabase
- **Skills**: Web Development, Machine Learning, High-Performance Computing, Parallel Programming, Shell Scripting
- **Publications:** Published an IEEE paper on Bank Loan Default Prediction (ICPS 2022), ISBN: 978-1-6654-7022-3.