

Shreya Bandyopadhyay

Business & Data Analyst - Senior

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SUMMARY

Senior Business & Data Analyst with 5+ years of experience in banking operations, fraud detection, requirements analysis, and regulatory data analysis. Skilled at using SQL, Python, and advanced Excel to identify anomalies, improve fraud controls, and strengthen financial data integrity. Adept at translating complex business needs into structured requirements, performing gap analysis, and supporting change management activities. Demonstrated ability to balance data-driven insights with business acumen to improve decision-making, strengthen operational controls, and deliver measurable outcomes.

SKILLS

Business Analytics & Requirements:

Requirements elicitation & documentation, user stories, acceptance criteria, data requirements, gap analysis, stakeholder management.

Data Analytics & Reporting:

SQL, Python, Advanced Excel (Macros), Microsoft Power Platform (Power Apps, Dataverse, Power Automate, Power BI), data reconciliation, performance metrics analysis, model accuracy validation.

Machine Learning & AI:

Agile Methodologies:

NumPy, Pandas, TensorFlow, Scikit-learn, NLTK, PyTorch
Hands-on experience with Agile sprints, Jira, Confluence, daily standups, iterative delivery, and continuous improvement.

Testing & Quality Assurance:

UAT planning & execution, test case review, defect management, production validation, post-deployment support, audit-ready documentation.

Soft Skills:

Analytical Thinking, Cross-Functional Collaboration, Problem Solving, Stakeholder Engagement

PROFESSIONAL EXPERIENCE

System Engineer – Data Analyst – Senior

Oct '25 — Present

Tata Consultancy Services (Client: Citibank)

Toronto, Canada

- Working on an Intelligent Document Processing (IDP) initiative in the financial services domain to automate document classification and data extraction workflows.
- Facilitating requirements discussions and collaborative sessions with business users to support process automation and document processing initiatives.
- Performing data mapping and validation between raw sample datasets and truth tables to improve model training accuracy and ensure data consistency across structured and unstructured sources.
- Collaborating with AI and engineering teams to align business requirements with technical specifications, improving processing efficiency by 25%.
- Providing data insights to guide prioritization, identify gaps, and recommend improvements for fraud risk reduction and process optimization.

System Engineer - Data Quality Analyst

Jun '24 — Sep '25

Tata Consultancy Services (Client: Citibank)

Toronto, Canada

- Collaborated with stakeholders to gather functional requirements and ensure accurate data flow across financial and capital markets systems.
- Enhanced data accuracy by 15% through detailed reconciliation and documentation, reducing mismatches by 20%.
- Supported AML and fraud monitoring initiatives with zero audit escalations and 100% regulatory compliance.
- Led User Acceptance Testing (UAT) for banking applications, cutting post-deployment defects by 25% and improving platform reliability.
- Conducted root cause and gap analyses that shortened issue resolution time by 30% and strengthened data governance.
- Collaborated with risk and product teams to implement data-driven controls to identify and reduce fraudulent transactions.

Assistant System Engineer – Quality Analyst

Oct '21 — May '24

Tata Consultancy Services (Client: BMO)

Toronto, Canada

- Facilitated requirement clarifications with business teams for 5+ modules CRM application, improving requirement accuracy and reducing rework by 20%.
- Executed functional, regression, integration and automated tests (UFT, HP ALM) across 12+ Agile sprints, ensuring 98% requirement coverage and reducing user-reported defects by 18%.
- Created 100+ test cases, user scenarios, and traceability documents that improved QA handoffs and reduced defect

- turnaround time by 25%.
- Identified system gaps across CRM modules and partnered with developers and product owners to resolve them, improving overall workflow accuracy by 20%.

Trainee – Initial Learning Program (ILP)

Aug '21 — Sept '21

Tata Consultancy Services

Toronto, Canada

- Completed TCS Initial Learning Program with training in programming, web technologies, databases, SDLC, and Agile.
- Built real-world project simulations, strengthened coding quality and efficiency, and gained teamwork, communication, and client-delivery skills.

Software Developer (SAP B1 Technical Associate)

Jul '18 — Jun '19

Silver Touch Technologies Ltd.

Ahmedabad, India

- Gathered and analyzed requirements from 10+ business stakeholders to design SAP Business One add-ons for various businesses.
- Documented functional requirements, performed system customization, and supported user training and adoption activities.
- Designed and implemented SAP Business One add-ons tailored to client business needs, automating manual workflows and improving process efficiency by up to 25%.
- Reduced transaction processing times by 15-20% through targeted automation and process redesign.

Software Engineer Intern

Jan '18 — May '18

Silver Touch Technologies Ltd.

Ahmedabad, India

- Assisted in requirement gathering and implementation of SAP Business One add-ons to streamline business operations.
- Partnered with stakeholders to validate 30+ use cases and ensure alignment with business needs.
- Helped designing and implementing SAP Business One add-ons tailored to client business needs.

Front End Development Intern

May '17 — Jun '17

Bhaskaracharya Institute for Space Application and Geoinformatics (BISAG)

Gandhinagar, India

- Built a geospatial web application with CRUD and analytical features, enabling users to customize, visualize, and export maps; increased processing speed for map rendering by 20%.
- Gathered and processed over 50 geospatial datasets to improve application accuracy, leading to a more reliable and user-friendly mapping tool.

EDUCATION

Master of Science in Computer Science (GPA: 85.33/100.0)

Sep '19 — May '21

Lakehead University

Thunder Bay, Canada

- Related Coursework: Machine Learning and Neural Networks, Topics in Smart Health Informatics, Natural Language Processing, Big Data, Ethical Issues in Computer Science.

Bachelor of Technology in Information Technology (GPA: 74.70/100.0)

Aug '14 — Jul '18

Manipal University Jaipur

Jaipur, India

- Related Coursework: Data Structures, Big Data Analytics, Artificial Intelligence, Cloud Computing

CERTIFICATIONS

- Microsoft Certified Power BI Data Analyst Associate** Aug '25
- Entry Certificate in Business Analysis** Dec '23
- Microsoft Certified Azure AI Fundamentals** Oct '21

AWARDS

Star of the Month

Tata Consultancy Services Ltd.

Jun '25

- Awarded “Star of the Month” for client recognition of excellent work, and for contributions to onboarding new team members, earning commendation from senior management.

TCS AI Idea Igniter

Tata Consultancy Services Ltd.

Nov '25

- Recognized for presenting a high-impact AI solution concept and future-scope roadmap for enhancing financial crime detection efficiency; selected as a top idea among company-wide submissions.

ACADEMIC PROJECTS

Misbehavior Detection in VANETs (Machine Learning), Lakehead University

Sep '20 — Apr '21

- Designed and implemented a lightweight tree-based ML model to detect malicious behavior in Vehicular Ad Hoc Networks, achieving 92% detection accuracy.
- Analyzed and compared algorithms including Decision Tree, Random Forest, and Extra Tree Ensemble Classifier, identifying the most efficient model with a 15% faster processing time over baseline methods.

Image Processing on CT Scan Image Dataset, Lakehead University

Jul '20 — Aug '20

- Reprocessed a dataset of over 2,000 CT scan images by resizing, denoising, and segmenting images, improving model readiness and consistency by 25%.
- Applied 2D Convolutional Neural Networks for feature extraction and tested models using K-Nearest Neighbors and Random Forest algorithms, achieving classification accuracy of 88%.

EXTRA CURRICULUM

International Peer Mentor

Sep '19 — Apr '20

Lakehead University

Thunder Bay, Canada

- Mentored 12+ international students from 8 countries, providing guidance on academics and cultural adaptation, contributing to a 95% mentee retention rate in the program.