

SAJJAN LAMICHHANE

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OBJECTIVE:

To acquire a challenging position within the office of institutional research that will allow me to utilizing the opportunity to offer proven and developing skills within the higher education system.

PROFESSIONAL SUMMARY:

Experienced Institutional Research Analyst with advanced mathematical and analytical skills, as well as a track record of identifying and resolving complex issues, data extraction, cleansing, transformation, loading, and developing analytical models to solve business issues. Proficient in Python and R programing, and passionate about cutting-edge Blockchain Technology, Data Science, and Statistical Analytical tools to solve complex business problems including predictive analysis and data visualization. Over 5 years of experience in higher-ed and 8 years of experience in data engineering plus software development with a proven entrepreneurial journey.

TECHNICAL SKILLS:

Operating Systems: Linux (Ubuntu, Fedora), Windows (XP, 7, 10,11)

Language: Python, SQL, PL/SQL, Hadoop, C#, HTML, JSON, XML, R, MATLAB, SAS, PeopleCode, D3.js

Query: MySQL, MS SQL Server, Oracle, SQR, PS Query

ERP solution: Banner ERP, PeopleSoft CRM, D2L(Georgia View), Oracle Peoplesoft, Starrez Housing, Blackboard, MetaApp, PyraMed, DegreeWorks

BI/Reporting/Statistical tools: Argos, Tableau, Power BI, Minitab, Cognos, Qlik, SSRS, SSIS, SPSS, Excel, Smartsheet, SAS Visual Analytics

Survey tools: Survey Monkey, Class Climate, Campus Labs

Software/Tools: RStudio, Spyder, Atom, Jupyter, Visual Studio, Office 365, Trello, Github, Jira, Bitbucket

Framework: Django, Flask, MVC

CMS: WordPress, Joomla, OmniUpdate(OU)

CERTIFICATIONS:

Data Analysis and visualization, Machine Learning with Python, Design Patterns, SAS Programing

PROFESSIONAL EXPERIENCES

West Chester University of Pennsylvania

August 2022 – Present

Business Intelligence Developer/Analyst

- Enhancing and developing new BI reports, dashboards, and data visualizations using best practices (technical specification, project management documentation, version control, internal validity testing, end-user acceptance) that provide business intelligence objects to users that are clear, accessible, and user-friendly across various technology platforms and end-user skill levels.
- Effectively using SAS Visual Analytics for Business Intelligence and Data Visualization. Also, developing SAS/SQL queries against Peoplesoft to extract and analyze data for ad-hoc reporting, ensuring accurate and timely retrieval of critical information.
- Seamlessly integrating data from diverse sources, including SIS, LMS, and internal data stores, to construct robust data structures and employ effective data warehousing strategies for the secure, precise, and efficient storage and management of data.
- Conducting data audits and validation processes, establishing data integrity checks to detect and address data quality concerns, and collaborating with the relevant personnel to rectify these issues when necessary.
- Developing comprehensive documentation and training resources to facilitate users in consuming information and effectively navigating BI solutions including SAS Visual Analytics, while also maintaining a data dictionary to foster a culture of data literacy and uphold data governance principles.
- Engaging in effective communication with campus stakeholders to identify specific business requirements and suitable data sources, and subsequently translating these needs into practical Business Intelligence reporting solutions.
- Proficiently managing user-level access to SAS EM Dashboards, ensuring data security and appropriate permissions for diverse stakeholders
- Used Tools – Oracle SQL, SAS, Argos, Banner ERP, Peoplesoft, SAS Visual Analytics, Tableau, SQR, PeopleCode

Reporting and analysis team was initially handled by Information Technology Services and later moved to Institutional Research & Effectiveness. Additional responsibilities were added to my duties to better serve the role.

- Coordinated the collection, verification, and electronic submission of all state and federal data reporting, including but not limited to, state databases, IPEDS, Auditor General term reports, and other external ad-hoc reports in a timely manner.
- Participated in fulfilling external third-party survey requests, including those from organizations like the College Board and IPEDS.
- Developed tailored questionnaires, designed survey formats, and deployed them using platforms like Survey Monkey, Campus Labs, and Class Climate.
- Oversaw and monitored the state and USG reporting portals, efficiently disseminating data and reports to relevant stakeholders, and ensuring timely reminders for report collection deadlines.
- Developed, maintained, and updated SQL queries to capture data from the University's database for purposes of statistical data analysis, interpretation, and reporting.
- Supervised the departmental data verification process, ensuring that all relevant ASU departments reviewed and certified USG, state, Title III grant, IPEDS, DOE, US News, and other federal reporting on a term-by-term basis.
- Designed and upheld statistical models depicting student progression within the university, enabling short-term and long-term enrollment projections rooted in explicit assumptions and historical data.
- Performed cohort tracking studies on graduation, transfer, persistence, and retention rates using the National Student Clearinghouse portal's Student Tracker.
- Designed ASU factbook, preliminary enrollment report, common data set report, student profile, and enrollment trends report and upload it to the university website.
- Proposed the development of an interactive enrollment dashboard to the cabinet, which was highly praised upon its implementation and is now actively utilized by the cabinet, enrollment management, and academic affairs.
- Streamlined the data management process by collaborating with various departments to rectify inaccurate data entries, contributing to the establishment of departmental best practices for error reduction. Additionally, introduced and implemented a data glossary and data dictionary to the Data Governance Committee.
- Successfully led the design, development, and implementation of software development environments including programming languages, database technologies (SQL), and reporting infrastructures (Argos, Tableau, Qlik, Cognos).
- Liaised with the University System of Georgia (USG) for Academic Data Submission and Validation, overseeing tasks like enrollment monitoring, EdPrep Data Submission, and HR data collection and validation.
- Conducted extensive qualitative, quantitative, and predictive data analysis within the complex landscape of systems including Banner ERP, PeopleSoft, and others, to support ASU's SACSCOC-related initiatives for students, faculty, and academic programs.
- Actively engaged and assisted in preparing ASU's 10th-year SACSCOC reaffirmation report in 2020/2021 for faculty roster and class schedules, QEP-academic standing, class size trends, student-to-faculty ratio, comparison of full-time and part-time faculty to total enrollment e.t.c.
- **Used Tools** – Oracle SQL, Argos, Tableau, Ellucian's Banner, Peoplesoft, Cognos, Minitab, Qlik, SPSS, Excel, OU, StarRez, Power BI, SQL, PL/SQL, Python, JSON, XML, Excel, SurveyMonkey, ClassClimate, CampusLabs, IPEDS, CollegeBoard, StudentTracker, US News

- Developed SQL Queries within Banner, Peoplesoft, Degreework databases for data collection, augmentation, and selecting the data variables in the analysis process while also focusing on query optimization to improve performance.
- Constructed the consolidated Albany State University and Darton College database, amalgamating various data sources, including Banner and other Enterprise Application databases, utilizing Oracle PL/SQL.
- Contributed to the development and design of a data warehouse for the University System within the Oracle environment using PL/SQL. Conducted high-level analyses utilizing a range of software such as Excel, SPSS, and Tableau, as well as programming languages like Python and SQL
- Identified key performance indicators supported data reporting and requests and collaborated as a team member in the creation of new dashboards, scorecards, and self-service reports.
- Formulated sophisticated visualization of analysis output for business users. Published results and address constraints or limitations with functional users and cabinet members.

- Tested Complex ETL Argos Mappings and Sessions based on functional user requirements and business / functional rules to load data from source flat files including Axiom files and RDBMS tables to target tables.
- Used Data Quality validation techniques to validate Critical Data Elements (CDE) and identified many anomalies. Extensively worked on statistical analysis tools and adept at writing code in Advanced Excel, R, and Python.
- Conceptualized and built data models, tools, custom visualizations, and dashboards in Argos (previously Power BI) that communicate results to clients, developed a compelling story with the data, and optimized their performance.
- Extracted and validated employee records using PeopleSoft CRM for accurate data management and organizational efficiency.
- Designed a RESTful API using JSON to establish a connection between StarRez Cloud Data and Banner Data, facilitating the generation of a unified report from two distinct platforms.
- Assisted in developing a Student Information System (SIS) application that integrates with Ellucian's Banner's different modules and other systems including StarRez, Blackboard, etc.
- Utilized Tableau to create visual representations of the student population on both the US and Georgia maps, with the results published in the ASU Factbook and on the website.
- **Used Tools** –Oracle SQL, Argos, Maps, Tableau, Samanage, Ellucian's Banner, OU, StarRez, Power BI, SQL, PL/SQL, Python, JSON, XML, Excel

Department of Computer Science & Mathematics, University of Central Missouri

Graduate Assistant

- Researched different Data Mining topics under Graduate Coordinator Dr. Mahmoud Yousef
- Researched Prediction Algorithm using Data Mining Techniques
- Using Prediction Algorithm completed project "Prediction of Terrorist based on Predictive Techniques"
- Developed Application "Climate Change Data Visualization" using Data Mining tricks on World Bank data.
- Analyzed different papers on Prediction and generated Data Mining Model/ Algorithm for the prediction
- Graded lab reports, assignments, and quizzes.

Smart Samaj – NepFlights

April 2013 – July 2016

Software Engineer / Data Engineer, Kathmandu, Nepal

- Founded and ran a startup named Nepflights, the first Nepali Online Flight Reservation / Ticketing System with open APIs.
- Designed databases and APIs for different local airlines and integrated them with their systems
- Developed forecasting model, and financial model and conducted trend analysis on past financial, and operational performance using Python.
- Developed machine learning, predictive analytics & Python modules for day-to-day business activities.
- Worked with different airline companies to acquire data from them as different data sources and maintain database systems.
- Applied data visualization, descriptive and summary / statistical techniques for discovery and timely insights (data explorations, ad-hoc queries, and analysis)
- Identified the architecture, infrastructure, and interfaces to data sources, tools supporting automated data loads, security concerns, analytic models, and data visualization.
- Investigated and resolved application and system integration issues coordinating with different users, DBAs, application developers, and management.
- Developed and delivered interactive dashboards to visualize the flight analysis and data for different domestic flights in different provinces and areas.
- Conducted studies, and rapid plots, and used advanced data mining and statistical modeling techniques to build a solution that optimizes the quality and performance of data.
- **Used Tools** – Python, SQL, PHP, Visio, Excel, ADO.NET C#

EDUCATION:

Masters of Science in Analytics

Georgia Institute of Technology, Atlanta, Georgia

August 2021 – July 2023

Masters of Science in Computer Science

University of Central Missouri, Warrensburg, Missouri

August 2016 - May 2018

Bachelor of Science in Computer Science & Information Technology

Tribhuvan University, Kathmandu, Nepal

2009-2013

OTHER ACCOMPLISHMENTS:

- Member – Association of Institutional Research (AIR)
- Poster Presentation: Sentimental Analysis, University of Central Missouri
- Graduate Symposium Award, University of Central Missouri
- National Society of Leadership & Success, University of Central Missouri
- Top 5 Undergraduate Project Award, Tribhuvan University & Nepal Telecom Authority.
- General Secretary, CSIT Association of Nepal
- Founder: G-Hackademy, Online coding camp for girls in ICT
- Instructor: Theory of Computations, Swastik College, Nepal