XIAN JI

Data Scientist/ Engineer

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CAREER SUMMARY:

Experienced and solution-focused Data Scientist/Engineer with 3 years of expertise in data analysis, database management, and data visualization. Proficient in R, Python, SQL, and Tableau, with a proven track record of driving data-driven strategies and enhancing decision-making across diverse sectors. Passionate about leveraging data to drive positive social impact.

WORK EXPERIENCE:

United Nations ESCAP   **Dec 2022 - Apr 2023 (Part-time) - Present (Full-time)**

Data Scientist consultant (Statistics Division)

- Led the development and implementation of predictive models and interactive dashboards to assess SDG and SAMOA Pathway progress for the Asia-Pacific region, enhancing data-driven decision-making and resource allocation.
    - Designed and built predictive models using R with advanced statistical methods and machine learning algorithms, ensuring comprehensive data coverage and accuracy.
    - Created and implemented interactive dashboards (National SDG Profile, SDG Data Availability Dashboard, Statistics Division Snapshot), providing real-time insights.
    - Collaborated with stakeholders, providing data-driven policy recommendations that informed regional development strategies.
- Organized regional workshops for national statistics officials in Asia-Pacific, focusing on modern statistical business processes.
    - Developed comprehensive training materials and practical exercises in R, introducing advanced statistical methodologies.
    - Significantly improved the quality and accuracy of statistical data collection and reporting, enhancing participants' expertise in statistical methodologies.
- Managed and optimized the internal database, ensuring a reliable and accurate source.
    - Architected and executed data collection and maintenance strategies using SQL Server Management Studio (SSMS), Microsoft Access, and sophisticated API integrations, leveraging Statistical Data and Metadata Exchange (SDMX) standards.
    - Developed and enforced comprehensive data validation frameworks and quality assurance protocols, enhancing database integrity, performance, and reliability.
- Provided expert support on statistical methodologies, data collection, and visualization to member countries and international organizations, and analyzed national reports to provide actionable insights.
    - Collaborated with cross-functional teams to integrate machine learning models and natural language processing (NLP) techniques for advanced data analysis and text mining of SDG indicators usage in Voluntary National Reviews (VNR).
    - Visualized results to improve understanding and impact, facilitating informed policy recommendations and strategic insights.
- Co-authored influential reports, providing crucial insights and actionable strategies for regional development.
    - Asia and the Pacific SDG progress report 2024 : showcasing transformative actions
    - Asia and the Pacific SDG progress report 2023 : championing sustainability despite adversities
    - Power of Data for Social Impact
    - Pacific Regional 10-Year Review of the SAMOA Pathway
    - Understading SDG data gaps based on national realities

China Merchants Bank   **Jul 2022 - May 2023**
Data Engineer (Information Technology Department)

- Managed Big Data Systems, Database Modeling, and System Integration
  - Administered GaussDB(DWS), compatible with the PostgreSQL ecosystem, for enterprise applications, managing and processing billions of financial data points daily from diverse sources to ensure robust data management systems.
  - Designed and developed comprehensive database models to support large-scale financial data integration, optimizing scalability and efficiency of the data management infrastructure.
  - Developed, tested, and optimized SQL scripts for critical financial regulatory compliance and audit reports, such as the Finance foundational data report and PBOC report, achieving stringent compliance and high data accuracy.
- Conducted Comprehensive Reporting and Collaborative Problem-Solving
  - Prepared detailed documentation for database development and integration projects, including system architecture, data models, and workflow diagrams, supporting the design and implementation of effective information management systems.
  - Collaborated with cross-functional teams, including test and business analysts, to design and implement a robust data verification system, addressing logical inconsistencies and ensuring accuracy in data collection and processing.
  - Identified and documented gaps within information management systems, contributing insights for proposals aimed at enhancing system functionality and data integrity.
- Enhanced Data Visualization and Real-Time Monitoring
  - Utilized Tableau and Power BI to create dynamic KPI dashboards, providing real-time monitoring of script performance, data processing completion rates, and other critical metrics.
  - Enabled immediate access to key performance indicators, facilitating informed decision-making for managers and stakeholders through effective data visualization.

United Nations ESCAP   **Feb 2022 - Jul 2022**
Statistics Intern (Statistics Division)

- Designed and developed 18 R scripts to efficiently retrieve and process raw data from APIs in various formats (XML, JSON, CSV) from organizations such as the World Bank, WHO, and FAO. Streamlined and automated the data transformation process, reducing loading time by 50% and enhancing data accessibility and timeliness for critical analysis and reporting.
- Architected and built comprehensive reporting infrastructures and interactive dashboards using Tableau, focusing on SDG 1 (No Poverty) and SDG 5 (Gender Equality). Published these dashboards on the official website, providing stakeholders and the public with clear, up-to-date information that supported informed decision-making and transparency.
- Delivered internal Tableau tutorial workshops, training team members on best practices and advanced techniques to leverage Tableau for effective data visualization and reporting.

Hellobike (Shanghai Junzheng Network Technology Co., LTD)   **Mar 2021 - Jun 2021**
Data Analyst Intern (Bicycle Operation Department)

- Authored extensive SQL scripts (over 5,000 rows) in Presto for real-time results and Hive for processing massive volumes of data, involving cleaning invalid dated data, annotating, counting, and splitting millions of rows of raw data generated from applications in the database.
- Developed KPI tracking systems, constructed real-time bicycle operation index visualizations using Tableau, and created automated data broadcasting applets, reducing manual reporting by 7.5 hours weekly.
- Collaborated with the product and marketing teams to segment users by tracking and modeling riding behavior online, analyzing spatial data, optimizing bicycle numbers in different city grids and time periods, resulting in a 20% increase in the turnover rate of each bicycle.

Bosch Rexroth China   **Jun 2019 - Sep 2019**
Intern (Purchasing Quality Department)

- Executed ME21N tcode in SAP to create purchase orders to update over 50 suppliers invoices in database, and managed engineering drawings, invoices, purchase orders, and statement logs to maintain the supply chain system correct and latest.
- Tracked the progress of 3 internal customer complaints related to supplier defects from start to finish, communicated with global suppliers on traceability solutions, confirmed average 10+ order details weekly, and avoided 60% of process issues.
- Analyzed and verified purchasing data using excel charts, pivots and functions, and Power BI about the annual repair data for 30+ suppliers and formed analytics reports reported to the quality control sector.

China Pacific Insurance Company   **Nov 2017 - Jan 2018**
Data Support Intern

- Managed and analyzed large insurance datasets using advanced SQL and Oracle tools, identifying key trends and supporting strategic decisions.
- Updated KPIs and produced detailed monitoring reports for senior management to assess business health and drive improvements.
- Collaborated with marketing and sales teams to enhance data flow, leading to more effective campaigns and improved customer targeting and sales conversion rates.

China Life Insurance Company   **Dec 2016 - Feb 2017**
Account Manager

- Provided comprehensive insurance services and financial advice to clients, focusing on strategies for risk avoidance and asset preservation.
- Analyzed new customer data, customer retention rates, renewal rates, and overall center performance to develop effective customer retention plans, and update customer database regularly.
- Maintained and nurtured relationships with regular customers, inviting them to participate in company activities to identify and address their evolving needs.
- Leveraged referrals from existing customers to gather detailed information on new prospects, consistently achieving monthly sales targets of 20,000 Yuan.

RELEVANT PROJECTS:

Direct Marketing Optimization - Data Processing & Model Building

- Aimed to locate clients through direct marketing optimization to maximize the bank revenue (Python).
- Processed 5140 clients' demographical, account, in/outflow data with 36 features and built 6 classification and regression models (logistic regression, KNN, decision trees, random forest, gradient boosting, neural network, etc.) to predict probability and revenue of mutual funds, credit cards and consumer loans, and evaluated by AUC, MSE.
- Calculated expected revenue of each client to get the best strategy with an increment of 26%, and conducted customer portraits analysis for products.
- A technical report and a target client list were provided to 5 bank managers and discussed the practical suggestions.

EDUCATION:

KU Leuven
Master of Science in Statistics and Data Science   **Sep 2019 - Feb 2022**

Jiangsu University
Bachelor of Economics (major in Insurance)   **Sep 2015 - Jun 2019**

CERTIFICATE:

- Tableau Desktop Certified Specialist
- Certified Resource Person, Philippine Statistical Research and Training Institute (PSRTI)
- China Accounting Professional Qualification Certificate
- Certification of Securities Professional (issued by Securities Association of China, SAC)

SKILLS:

Technical skills
- R (dplyr, tidyverse, ggplot, RODBC, rsdmx), Python (Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn, H2O, Keras), SQL (SQL Server, PostgreSQL, GaussDB(DWS)), Tableau (Tableau desktop specialist), Machine learning ((un)supervised learning, deep learning)

Language
- English (Fluent), Chinese (Native), French (Basic)