Consultant

SCOTT JUE

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Location: San Diego, CA

Objective

Solution-oriented professional with a MS in Data Science and a strong background in financial planning and analysis, eager to transition into a data-oriented career. Committed to continuous learning and development, I aim to apply my analytical skills, experience in financial modeling, data visualization, and automation to optimize decision-making, enhance organizational efficiency, and contribute to and grow within a forward-thinking organization.

Education

MASTERS OF SCIENCE IN DATA SCIENCE, Northwestern University | Chicago, IL 2022 – 2023

- Specialization: Analytics and Modeling

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION, Chapman University | Orange, CA 2007 – 2012

- Concentration: Finance and Entrepreneurship

Skills

Programming: SQL, Python (*Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn*), **R** (*ggplot2, dplyr, caret, tidyr*)
Data Analytics, BI & Visualization Tools: Tableau, Alteryx, Microsoft Excel
Relevant Courses: Supervised Learning, Unsupervised Learning, Applied Statistics, Decision Analytics, Data Visualization, Database Systems and Data Preparation, Practical Machine Learning, Sports Performance Analytics, Project Management

Work Experience

La Jolla Institute for Immunology | San Diego, CA February 2013 – Present

CONSULTANT (March 2022 – Present)

- Utilize data analysis to provide guidance and recommendations for process improvements for various financial projects
- Advise and offer insights to the FP&A team on annual budgeting, quarterly forecasting, and quarterly variance analysis processes
- Facilitate the development and improvement of the Indirect Cost Rate model by addressing and closing knowledge gaps
- Manage the handover of the annual budgeting process, streamlining the transition and ensuring alignment with organizational objectives

MANAGER, FP&A (January 2022 – February 2022)

- Led onboarding of new hires and provided mentoring, guidance, training, and career development opportunities for the FP&A team
- Reengineered Indirect Cost Rate model in order to optimize for new reporting requirements and improve layout efficiency
- Ensured compliance of Federal Cost Allocation Services financial regulations, internal policies, and other reporting requirements
- Cross collaborated with MIS team to refine data warehouse and pipelines, enhancing accessibility of finance and accounting data
- Oversaw identification of data inconsistencies, collaborating with stakeholders to resolve issues and establish SOPs, improving accuracy

SENIOR DATA ANALYST, FP&A (January 2021 – December 2021)

- Designed linear regression models using Python to predict the institute's Indirect Cost Rate in support of organizational strategic planning
- Reduced liability by $8.3 million over four years by identifying and correcting data discrepancies in effort reporting on research grants
- Streamlined FP&A's workflow by using SQL scripts to automate tasks resulting in a reduction of 40 hours of manual work per month
- Built data visualization and dashboards that provide key insights for senior management to make data-driven decisions
- Developed ETL workflows in Alteryx to blend data from various sources and perform data cleansing and data validation tasks

SENIOR FINANCIAL ANALYST, FP&A (February 2013 – December 2020)

- Standardized and automated FP&A reports, 5-year revenue and expense forecast models, quarterly financial reports, Indirect Cost Rate calculation, and performance dashboards using Excel, along with providing ad hoc analyses to support decision-making

- Owned and optimized systems infrastructure to support FP&A's analytical needs, identifying key financial processes and translating reporting requirements into technical specifications in Jet Reports for the implementation of Microsoft Dynamics 365 ERP
- Prepared Indirect Cost Rate proposals using OMB's Uniform Guidance cost principles, ensuring compliance with NIH grant regulations
- Aligned with department managers to effectively track and manage expenses against their budgets, enhancing forecasting accuracy
- Managed the institute-wide annual planning and budgeting process for a ~$90M budget, ensuring alignment with strategic goals
- Conducted financial modeling for strategic initiatives, including KPIs, cash flow forecasting, salary adjustments, and revenue diversification

FINANCIAL & OPERATIONS ANALYST, Calibr | San Diego, CA February 2012 – November 2012

- Managed the annual budget process (~$13M), financial forecast, preparation of the financial statements, and various analytical reports
- Established organizational policies, internal control matrices, and standard business operation procedures and processes
- Implemented and optimized the accounting and payroll/HR systems, designed the initial chart of accounts, managed relationship with PEO (TriNet), and provided onboarding training for new hire orientation
- Administered the end-to-end purchasing system (Point Purchasing), resulting in supplies cost savings and designed purchasing policies and approval procedures to comply with internal controls process

Academic Projects

- **Solar Energy Prediction Using Machine Learning:** Developed predictive models to forecast solar power output based on historical weather data for Solar Tech Solutions, aiding utility companies in optimizing energy grid utilization. Utilized various machine learning techniques, including LightGBM, Random Forests, and CNNs, to improve forecast accuracy and drive cost savings. Achieved an R^2 score of 0.6893 with the LightGBM model, demonstrating the importance of features such as temperature and humidity. Recommended season-specific and location-based models to enhance performance further, supporting utilities in reducing reliance on fossil fuels and contributing to a sustainable energy future.
- **Ames Housing Price Prediction Project:** Developed predictive models for estimating home sale prices in Ames, Iowa, using a refined dataset from 2006 to 2010. Created multiple linear regression models, including an expanded model that improved prediction accuracy through additional features and validated performance with statistical tests. Conducted outlier detection and variable transformations to enhance model fit, balancing performance and interpretability. The final model achieved an R-squared of 0.89, accurately predicting sale prices within 10% of actual values for 70% of observations.
- **Melbourne Housing Submarkets Clustering Project:** Utilized unsupervised learning techniques, specifically k-means clustering and hierarchical clustering, to segment a dataset of 34,857 rows and 21 columns from Melbourne's real estate market. After preprocessing and scaling the data, k-means clustering identified four distinct housing submarkets based on property attributes such as location, type, price, and size. The insights gained from the analysis assist real estate firms in developing targeted marketing strategies and improving property valuation accuracy, enhancing decision-making processes in a competitive market.
- **Sales Fraud Detection Project:** Applied unsupervised learning techniques (DBSCAN and Isolation Forest) to detect fraudulent sales transactions in a dataset of 133,371 unlabeled records. Preprocessed data, including handling missing values and encoding categorical variables. DBSCAN outperformed Isolation Forest, achieving a higher F1 score, accuracy, precision, and recall. The model successfully identified 425 fraudulent transactions, demonstrating its effectiveness in fraud detection and providing businesses with actionable insights to mitigate financial risks.
- **NU Industries Profit Maximization Project:** Developed a linear programming model using Python's PuLP to optimize the product mix and resource allocation for NU Industries, a manufacturing company with two plants and three product lines. The model addressed constraints related to labor, raw materials, storage, and transportation, achieving a projected profit of $7,132,135 over five sales periods. Strategic marketing recommendations were provided to enhance the promotion of high-margin products and insights from sensitivity analysis identified opportunities for improved profitability through resource adjustments.

Certifications

Google Data Analytics Certificate (Google, *Coursera*)
Python for Data Science Certificate (UC San Diego, *edX*)
SQL for Data Science Certificate (IBM, *edX*)
Machine Learning for Data Science Certificate (Columbia University, *edX*)
Linear Algebra Certificate (Rice University, *edX*)
Predictive Analytics for Business Nanodegree (Udacity)
Data Analyst Nanodegree (Udacity)
Data Foundations Nanodegree (Udacity)