

TAO (RICHIE) LIN

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SUMMARY

- Research Analyst / Data Scientist / Business Intelligence / Branding Manager with 7+ years' experience.
- Proficient in data engineering, data analysis, visualization and product development with various tools.
- Skilled Data Analyst with 5+ years' experience in data manipulation, mining, visualization, presentation, documentation, interactive product development, predictive modeling and optimization.
- Data expert with excellent field knowledge in Criminal Justice, Marketing, Economics and Management.
- Self-motivated, detail-oriented, responsible & collaborative. A fast-learner w/ strong project management skills.

EDUCATION

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| M. S. in Management Information Systems , Texas A&M International University | 08/2014 – 12/2015 |
| B. Econ. in International Business and Economics , Zhongyuan University of Technology | 08/2007 – 06/2011 |

EXPERIENCE

Data Collaborative for Justice, John Jay College of Criminal Justice, CUNY <i>Research Analyst, Technical Assistance to the NYC Mayor's Office of Criminal Justice</i>	New York, NY 11/2016 - Present
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- Perform data cleaning and manipulation with large, complex and confidential datasets;
- Collaborate with research staff to develop relevant data mining, data visualization and data analysis tools;
- Conduct quality assurance analysis on data from multiple agencies across data platforms;
- Designed and implemented record matching strategy for linking across multiple criminal justice agency datasets;
- Analyzed and produced methods for addressing quality data issues, including complex recoding and cleaning strategies for manually entered data;
- Analyzed and migrated confidential data from Oracle database to a Redshift database on an AWS cloud server.

Rang Tech Inc. Baanyan Software Service Inc. <i>Intern, Data Scientist, Database Administration/ Business Intelligence</i>	Edison, NJ 02/2016 – 10/2016
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- Performed as an SQL Server BI Developer and Data Analyst, with SQL Server and BI suits;
- Produced BI insights with R & Tableau: interactive data visualization, documentation and presentation, Stats app;
- Regression modeling development and optimization, data classification and clustering, market basket analysis, time series analysis and forecasting.

Texas A&M International University <i>Research Assistant, Data Analyst and Teaching Assistant in Stats. & Econ.</i>	Laredo, TX 01/2015 – 12/2015
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- Participated in survey design and data collection under faculty supervision;
- Performed data mining and analysis to support faculty research, resulting in successful publication;

Pepsi Beverage West North-China Region <i>Regional Brand Executive (Market Analyst, Brand specialist)</i>	Zhengzhou, China 08/2011 – 08/2014
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- Led a branding team of 3, designed and managed marketing operation plans for Pepsi, Tropicana and Gatorade.
- Executed the marketing plan in 3 provinces with 12 local markets w/ an annual budget of \$350 million;
- Managed brand assets, developed branding strategy, planned and executed promotional projects;
- Supported market research team in data collection and analysis and designing data informed marketing strategy.

TECHNICAL SKILLS

- Excellent Skill with data science languages: R & Python
 - Data Manipulation | Modeling and Machine Learning | Data Visualization and Product Development
- Databases: Oracle, Redshift, SQL Server | ETL: SnapLogic, SSIS | Other Analytics: Tableau, Google Analytics
- Cloud Computing: AWS Data Science Dev. Env. - EC2, S3, Redshift | OS: Windows and Linux
- MS Office: Advanced skills in Excel, PowerPoint & Word, experience with SharePoint, Publish, Visio, etc.

RESEARCH AND PROJECT DETAILS

Technical Assistance Project to the NYC Mayor's Office of Criminal Justice (MOCJ)

New York, NY

Research Analyst

11/2016 - Present

- Data integration project: data analysis, documentation and quality assurance
 - Analyzed and validated datasets using external data and archival documentation;
 - Designed and implemented data cleaning methods, produced reusable cleaning and recoding code and functions in R, transferred product knowledge to clients via documentation and presentations;
 - Produced methods to improve data quality, including spell check functions, string parsing, and date recoding.
 - Communicated with MOCJ research staff and external data partners to prioritize data recoding needs, identify data issues, and implement solutions;
- Data integration project: dataset integration and record matching
 - Analyzed, designed and implemented algorithms for matching across datasets
 - Implemented probabilistic matching algorithm for complex record matching scenarios.
- Data management and engineering
 - Built data migration pipelines to Redshift for datasets from various data systems for multiple projects
- Exploratory data analysis with diverse tools
 - Geospatial mapping of publically available police enforcement data | Used Random Forest Algorithm to predict behavior (court appearance) | Social network analysis to explore correlations among co-prosecuted charges
- Development Environment: R: {data.table}, {ggplot2} and more | SQL :Oracle & Redshift | Python | SnapLogic

Data Scientist internship program

Edison, NJ

Intern at Rang Technology Inc.

11/2015 –05/2016

- Advanced training in statistical tools with a concentration in R, including:
 - Regression modeling development and optimization: linear/ logistic Regression and optimizing methods such as stepwise regression and LASSO variable selection methods;
 - Classification and clustering: CART, Random Forest, knn clustering etc.
 - Market basket analysis with association rules and lift method, time series analysis and forecasting, social network analysis and simple text mining analysis;
 - Applied market basket analysis to a local chained retail company for customer demographic/ behavior research, designed weekly promotional and item bundle programs;
 - Advanced and interactive data visualization with ggplot2 package;
 - Stats app development with Shiny App and Dashboard. Documenting with R markdown and R presentation.
- Training in other tools, including: Tableau/ SQL Server / Python.

M.S. IS. degree program, Concentration in Data Science

Laredo, TX

Graduate student researcher and Project leader at Texas A&M International Univ.

08/2014 –12/2015

- Completed <Data Science> specialization program provided by John Hopkins University at Coursera.org.
- Developed research for applying machine learning and neural network methods on DDoS attack detection, presented at Texas A&M University System Pathways Student Research Symposium.
- Developed research on applying data analysis on sport events outcome, built research from theory, data gathering and data modeling. Resulted in invited presentation at 2015 ABDA Conference in Las Vegas.
- Completed course projects including:
 - <Click `n Dine, Business Analysis and Plan for an online food ordering app> for Project Mgt. and Design course, finished with a fully functional demo website, a detailed business plan and a high evaluation.
 - <Fitness Pal, a digitalizing development of TAMIU Rec center> , <IT management implementation for small business, a local family owned restaurant> for Information System Analysis course;
 - <Alcool, E-commerce project planning and analysis> for Management Information system course;

2011-2013 Business Insight Analysis / Market Research Projects

Zhengzhou, China

Brand Manager, Project Manager at Pepsi Beverage West North-China Region

08/2011 - 10/2013

- Used data visualization tools like Excel/ Tableau to provide insights on sales trend and market performance;
- Gathered branding KPIs from various sources, analyzed growth potential for channels and produced reports.

2012,2013 and 2014 Market Research and Pepsi Branding Programs

Zhengzhou, China

Brand Manager, Project Manager at Pepsi Beverage West North-China Region

08/2011 - 08/2014

- Developed and pushed to implement multiple marketing promotion programs:
- Both Brand index and sales for multiple brands had grown significantly during my service