Jianyin Roachell

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EDUCATION

The University of Tennessee at Knoxville, USA   08/2011 - 05/2015
Major 1: Business Analytics & Statistics GPA: 3.95 (Chancellor's Honors Scholar)
Major 2: Supply Chain Mgmt, BSc. Business Administration, Cumulative GPA: 3.61, Cum Laude.
Data Mining. Statistical Inference. Predictive Analytics. Prescriptive Analytics. Feature Engineering methods.

Julius-Maximilian Universität Würzburg, Germany   10/2017 - 06/2019
Masters of Science in Economics & Informatics GPA: 3.5
Informatics courses: *Randomized Algorithms and Design. Artificial Intelligence. NLP Text-mining. Software Engineer Mgmt. Security Software. Computational Economics.*

McKinsey & Company: Corporate Leadership Academy (In progress) - February to May 2025 Cohort

EXPERIENCE (8+ years)

SiriusXM - Pandora Radio, New York, NY   01/2022 - present
Senior Manager, Data Science & Forecasting Analytics (Full-time)
   ❖ Currently leading 3 high visibility cross-funtional projects to influence stakeholders for strategic decision making:
1) Forecasting Analytics innovation for subscriber churn & conversion rate:
   ● Spearhead the inhouse "*AutoForecast*" tool, now used all company-wide, reduced reporting time by 40%, automating time-series transformations- seasonality trends, macroeconomic forecast for budgeting.
   ● Implemented a 12-month rolling-window forecasting model that outperformed Finance's and BAU model performance by 2x.
   ● Report to senior VP leaders on monthly, quarterly macroeconomic forecasts impact on conversions and churn rates.
   ● Lead monthly data science knowledge-sharing sessions and discussed academic papers spread new ML & AI methods for best practices in data science product management.
2) Design and implement Feature Engineering Depot for propensity modeling in Databricks Ecosystem:
   ● Spearheaded feature engineering module that transforms unstructured text data into NLP and sentiment features.
   ● Curated customer billing data (fraud detection) from STRIPE payment platforms for the retention propensity model.
   ● Built feature engineer schema sandboxes and run daily processing jobs and productionalize into the feature store depot.
3) Design and Run AB testing experiments on customer revenue optimization:
   ● Check on implementation of discount/pricing promotion packages delivered to the treatment markets and impact on churn.
   ● Conduct counterfactual causal inference (GeoLift) to measure how UX in-app promotions changes impact the customer churn, and identify favorable marketing discount tactics that saved the company $16M in revenue.
   ● Present customer behavior insights to Marketing and Finance leaders for long-term go to market strategies.

Max Planck Institute of Geoanthropology & INWT-Statistics (Remote)   10/2019 - 12/2021
Data Scientist, Project Manager
   ● Led a team of 4 data scientists and conducted app feature testing and quality assurance for new features.
   ● Built data science application, dockerization of app, and implementing web application deployment.
   ● Assisted in API testing, code testing, and code refactoring in web application deployment.
   ● Automated a Twitter bot webcrawler Python+selenium ETL system that posts regularly on Twitter.
   ● Optimized XGboost ML model for predicting second-hand car prices for a top German automaker.
   ● Conducted Bayesian counter-factual causal analysis, time-series bifurcation theory analysis for publication.

Green Mountain Technology, Memphis, TN
Business Intelligence Developer, Data Analytics (Full-time)   10/2015 - 10/2017
   ● Conducted cost statistical modeling: write R packages for cost predictions and supply chain management.
   ● Constructed Machine Learning Models: NLP Neural Network model for predicting approval rates.
   ● Integrated Tableau with Python for the BI dashboard for client operational cost transparency projects.

CODING & DATA SCIENCE KNOWLEDGE

   ● **Experienced with:** Databricks. *SQL* +6 yrs. Web-scraping *(Python + Selenium)* +2 yrs . Dashboard Engineering *(Rshiny, Plotly, Tableau)* +3 yrs. Amazon AWS Sagemaker +3 yr. Teradata +2yrs. Jenkins ETL < 1 yr.
   ● **Scripting languages**: *R* +5 years. *Python* +5 years. *Fortran. SAS.*
   ● **Python ML packages**: Keras, TensorFlow, Scikit-learn, Pandas, NumPy, Statsmodels. AutoGluon, Chronos, Prophet
   ● **Personal Github**: https://github.com/policybot2020. **Research Publications**: Google Scholar
   ● **Software Publications**: *IsoMemo* (https://cran.r-project.org/web/packages/IsoMemo/index.html)

CERTIFICATIONS: SAS 9: Statistical Programming & Regression Modeling. Advanced SQL Retrieval Queries in SQLiteStudio. Machine Learning in Bioinformatics. A/B Test for Ad-campaign using Python