Xinqi Guo

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Work Experience

Business Analyst-AWS & Amazon Ads Air A Med

Advertising Optimization & SEO Strategy

- Increased Return on Ad Spend (ROAS) by 240% in 3 months through strategic advertising campaigns, continuous performance monitoring, and data-driven adjustments
- Maintained conversion rate above 10% by developing a keyword optimization framework, combining brand search term reports and competitor keyword analysis to continuously refine ad targeting and improve organic ranking
- Integrated Amazon order data, customer demographics, and market basket analysis with self-collected customer behavior • data, enabling 4x more new customers through personalized campaigns

AWS-Powered Real-Time Bidding & Monitoring System

- Built a serverless data pipeline using Amazon Ads API, Data Firehose, S3, AWS Glue, and Lambda to automate real-time data ingestion, processing, and performance monitoring
- Developed a real-time bidding algorithm triggered by AWS Glue ETL updates, dynamically adjusting bids based on hourly conversion rates, clicks, and ROAS trends, and send alerts via AWS SNS when the thresholds were breached
- Automated hourly data crawling and transformation using AWS Glue Crawlers and ETL jobs, ensuring timely and accurate campaign insights for fast decision-making

Internship Experience

Data Science Intern

InnerView Group

- Developed an alignment score to quantify the perception gap between frontline representatives and leadership regarding • competitive positioning
- Applied Gaussian Mixture Modeling (GMM) to segment respondents based on tenure, demographics, and survey responses, uncovering distinct patterns in advocacy and competitive perception
- Created interactive Tableau dashboards to visualize how tenure, role, and geography influence advocacy scores, providing executive leadership with data-driven insights to guide internal communication and training strategies

Research Data Assistant

Institute for Research on Innovation and Science

- Enhanced data quality in six major datasets of the 2024 UMETRICS Dataset, enhancing data integrity for 580000+ sponsored research grants across 100+ campuses
- Developed an algorithm to improve data linkage using customized stopwords, groupwords and abbreviations, reducing reliance on text similarity alone
- Reduced manual data review time by 50% by creating differentiated cleaning procedures of organization and people

Machine Learning Intern

- Reduced behavior detection time to under 5 seconds by optimizing an animal activity algorithm for real-time inference •
- Improved the model F1 score by 10% through high-quality data annotation using DeepLabCut's ResNet framework
- Enhanced customer response efficiency by summarizing customer comments using OpenAI APIs and conducting regular customer satisfaction surveys

Data Science Intern

Applied PIL and OpenCV to automate image preprocessing (reading, cropping, rotation and scaling)

Tencent Games

- Constructed hybrid images of cats and dogs by means of HPF function and LPF function realized by convolution
- Built HOG and LBP feature extractors and developed a classification model to distinguish between cats and dogs

Data Analyst Intern

- Discovered 4x more new players by conducting the user portrait analysis of APEX based on the related comments from • Bilibili and Reddit
- Recommended budget reallocation strategies after identifying that Chinese players were game-loyal (focused on Apex), . while Reddit users had diversified interests across games like COD, Valorant, and CSGO
- Created a prototype model predicting daily PUBG user fluctuations based on activity, news, match schedules, and • streaming trends, concluding PUBG's player base was largely unaffected by external factors due to high baseline popularity

Education

University of Michigan, Ann Arbor, Master of Information, Big Data Analytics 08/2022-05/2024 University of California, Santa Barbara, Bachelor of Statistics and Data Science

Additional Information

Skills: Python, R, SAS, SQL, Tableau, Power BI, AWS (Glue, Lambda, S3, SNS), ETL, Kafka, PySpark, Hadoop Certificates: IBM Full Stack Developer Specialization, IBM Data Engineering Specialization, Microsoft Power BI Analyst, Google IT Automation with Python

05/2023-08/2023

06/2021-07/2021

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09/2023-04/2024

08/2021

Furtrieve

IBM

09/2018-12/2021

