Juntao Chu

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EDUCATION

New York University New York, NY
Bachelor of Science, Applied Math, GPA: 3.86 Sept. 2021 – May 2024
Courses: Machine Learning, Databases, Data Science, Mathematical Modeling, Theory of Statistics

University of Minnesota - Twin City Minneapolis, MN
Coursework, Applied Math, GPA: 4.0 Sept. 2019 – May 2021

SKILLS

Programming Skills: Python (Pandas, Numpy, Matplotlib, Scikit-learn, SciPy, PyMC3, TensorFlow, PyTorch), SQL, C++, R Studio, PHP, HTML, CSS
Analytical Tools: Visualization (Tableau, Power BI, Looker), MS Excel
Database & Platforms: MS SQL Server, MySQL, Teradata, Oracle, Cassandra, Cosmos DB, AWS, GCP, SAP HANA, Azure DB
Data Mining: ETL (Alteryx, SSIS, Informatica), Machine Learning
Machine Learning: RNN, K-means clustering, CNN, PCA, Neural networks, SVM, Logistic Regression
Languages: Chinese (Fluent), Japanese (Fluent)

WORK EXPERIENCE

CenterPoint Energy New York, NY
Data Analyst **May 2023 - Present**

- Engaged with key stakeholders to decipher intricate business requirements and define reporting objectives into actionable points.
- Honed skills in **SAP HANA**, employed **ETL** in Alteryx for robust **data pipelines**, automated data workflows from SAP HANA to SQL Server, and ensured data quality with thorough mapping and pre-processing.
- Conducted ad-hoc analysis and troubleshoot complex SQL queries for **10+ Utility & Gas related reports**, including Disconnect for Non-Pay (DNP), Reduced Rate 175, and Switch Hold Report.
- Built and launched an automated monthly DNP report for the revenue protection team, aiding in the identification of high-risk, potential tamper accounts, leading to the prevention of revenue loss of **1+ million**.
- Designed and utilized **5+ dynamic dashboards**, including Account & Usage, Billing, and Engineer, using Tableau, effectively visualizing data and presenting various KPIs to convey business insights.

Wildfire Nanjing, Jiangsu
Data Analyst **May 2022 – May 2023**

- Collaborated with business stakeholders to gather requirements and identify Live and User **KPIs** to enhance Live operations.
- Blueprinted and architected a multi-dimension layers **database architecture** for optimized data storage and analytical retrieval.
- Automated and streamlined **ETL** pipeline on Azure Data Factory and PySpark in Databricks for seamless data transformation from Data Lake Gen2 to Azure Database, ensuring data quality through efficient data mapping, pre-processing, and cleansing.
- Identified user interaction as the leading variable influencing the Payment rate by applying **Feature Selection models** in Python, and collaborated with product teams to launch interaction tools, leading to a significant **9% increase** in Payment rate.
- Deployed a dynamic **Tableau**-based Live dashboard for weekly and monthly monitoring of customer activities, focusing on actionable points, implemented automated email alerts to promptly notify managers when specific KPIs fell below **predefined thresholds**, fostering a proactive response to performance issues.
- Partnered with **cross-functional** stakeholders from product, engineering, operations, and design teams to track customer paths and determine action points through website functions, conducted **Path Analysis** to identify reasons for unsuccessful purchases and performed root cause analysis to rectify a technical malfunction, increasing the product click-to-purchase ratio by **21%**.
- Performed a two-week **A/B testing** to gauge the impact of the product features on customer volume. The results demonstrated statistical significance through Hypothesis Testing.

Minnesota Daily Minneapolis, MN
Digital Marketing Intern **June 2020 - Jan. 2021**

- Leveraged **Google Analytics** to track web-based engagement statistics and inform content strategy during the pandemic, providing insights into target audience preferences and reader appetite, leading to strategic adjustments.
- Spearheaded social media marketing efforts, implementing a holistic marketing and branding strategy across multiple platforms.

RESEARCH PROJECTS

Quantum Algorithm for Solving Linear Systems in Infinite Dimension May 2022 – Dec. 2022

- Understood how to solve linear systems in finite dimension cases by HHL algorithm and quantum phase estimation.
- Transferred the infinite dimension matrix by Galerkin scheme and analyzed the conditions to solve the infinite-dimensional linear system by finding the eigenvalues of Galerkin approximation.