Timothy Hwangbo

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Technical Skills

Programming Languages: Python, SQL, R
Data Analysis Tools: Excel, Power BI, Tableau
Frameworks/Libraries: Pandas, NumPy, Matplotlib, PySpark, Scikit-learn
Cloud & Others: AWS, Azure, GCP, Git, APIs, A/B Testing, SAP, Databricks, Snowflake

Experience

Deloitte Detroit, MI

Data Analytics & Modeling - Consultant *Dec 2024 – Present*

- Automated executive dashboards using SAP queries and Power BI, doubling weekly reporting frequency and improving forecast accuracy for leadership.
- Developed 15+ standardized KPI dashboards in Power BI for cross-functional teams, reducing manual reporting time by 30% and enhancing visibility into timelines and staffing gaps.
- Contributed to pricing strategy for a generative AI proof-of-concept, analyzing infrastructure and usage costs to inform enterprise launch decisions.
- Developed scenario-based pricing models to simulate staffing tradeoffs and optimize resource allocation, improving operational efficiency by 42% and driving cost-aware decision-making across teams.
- Monitored AWS infrastructure usage to surface cost trends and inform pricing model decisions.

Data Analytics & Modeling - Analyst *Jan 2023 – Dec 2024*

- Automated weekly reporting with Power BI and scripting, saving 10+ hours per week and improving accessibility for non-technical users.
- Analyzed financial and operational data on a $250M program, identifying pricing anomalies and uncovering $10M+ in unplanned cost risk, enabling earlier intervention by leadership.
- Built scenario models and calculators to support vendor decisions, preventing $2M+ in projected costs.
- Designed a scalable Excel model for high-volume engagement forecasting, streamlining input structures and improving SAP query load speed by 60%.

Projects

ChatKat: AI Product Insight Chatbot | Python, Pandas, OpenAI API, Streamlit *June 2025 – July 2025*

- Designed and deployed an AI-powered Chatbot that analyzes CSV product usage data and generates actionable business insights using GPT models (OpenAI API).
- Performed data cleaning and trend analysis (revenue, churn, product usage) using Pandas; visualized insights with Plotly.
- Automated natural language insight generation from CSVs, reducing manual reporting time by 80%.

Shortform Signals: Retention Analysis | SQL, Python, Pandas, Jupyter, Tableau *May 2025 – Jun 2025*

- Analyzed shortform video drop-off points with SQL and Python (Pandas), finding 63% of viewers leave within 10 seconds.
- Identified behaviors that predicted repeat engagement and implemented changes that increased retention and repeat views.
- Conducted A/B tests comparing shortform video styles, revealing up to 15% variation in retention based on content design.

Education

Georgia Institute of Technology Part Time - Online

Master of Science - Analytics; Computational Data Analytics Concentration *Present*

Michigan State University East Lansing, MI

Bachelor of Arts - Finance; Corporate Finance Concentration *Aug 2018 – Dec 2022*

- Full-Ride Scholarship Recipient, Dean's List