

Astha Harlalka

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EDUCATION

Carnegie Mellon University – Tepper School of Business
Master of Science in Business Analytics (MSBA)

CGPA: 4.07/4.00

Pittsburgh, PA
May 2025

Narsee Monjee College of Commerce and Economics
Bachelor of Commerce (Financial Accounting and Auditing)

CGPA: 3.82/4.00

Mumbai, India
May 2021

SKILLS & CERTIFICATIONS

Programming/Technical Skills: SQL (Advanced), Python (Advanced), R, Git, MongoDB

Statistical & Econometric Methods: Experimental Design, Causal Inference, Econometrics, Hypothesis Testing, Regression (Linear, Logistic), Time Series Forecasting, Clustering, Sensitivity Analysis

Marketing Analytics: A/B Testing, Attribution Modeling, Marketing Mix Modeling (MMM), Churn Prediction

Visualization & Communication: Tableau, Power BI, Looker, QuickSight; Executive storytelling and cross-functional communication

Cloud & Data Engineering Tools: AWS (S3, Redshift, SageMaker Studio), Microsoft Azure, dbt, Alteryx, Google Analytics

Certifications: Microsoft AI-900, SQL Associate (DataCamp), Power BI Design (DataCamp), Advanced Excel (Coursera)

PROFESSIONAL EXPERIENCE

Deloitte Consulting

Gen-AI Product Analytics Consultant

January 2025 – April 2025

- **AI-Powered Marketing Analytics:** Built an AI persona simulation tool (LLMs and Selenium) to evaluate website UX, CTAs, & content across 1,000+ sites, delivering 25% usability improvement & saving 12,000+ review hours
- **Conversion Optimization & Validation:** Engineered multi-LLM benchmarking framework to optimize conversions & content performance, driving strategic recommendation adoption & reducing potential LLM hallucinations

Publicis Media (Subsidiary of Publicis Groupe)

Associate Manager, Business (Marketing & Growth) Analytics

July 2023 – January 2024

- **Revenue Growth:** Designed A/B testing frameworks & attribution modeling strategies, analyzed data with SQL & Python to optimize ad delivery, improving ROAS by 30% and generating \$7.2M in incremental revenue for clients
- **Data Analytics and Ad Optimization:** Decreased trafficking errors by 13% month-on-month using Google Tag Manager insights, saving an estimated 90+ hours/month of manual rework
- **Process Automation:** Delivered automation initiatives cutting manual workload by 25%, strategically positioning the team to scale services and manage \$2M in added revenue from a key Media & Entertainment account
- **Data Visualization:** Designed executive-ready Tableau/Power BI dashboards covering CTR, CAC, ROAS, and brand lift, used to guide \$50M+ media investment decisions

Senior Business Analyst

February 2022 – June 2023

- **Process Improvement:** Led global ad operations evaluation across 15+ countries to identify pain points and drive compliance improvements, enabling 3,500+ error-free campaign deliveries
- **Ad Fraud & Viewability Analysis:** Reduced invalid traffic exposure by 35% using IAS (Integral Ad Science) insights, improving ad efficiency
- **Training Lead:** Trained 30+ hires using personalized training methods and cut ramp-up time by 40%
- **High-Impact Troubleshooting:** Rapidly diagnosed and resolved a critical DV360 trafficking error that was blocking ad delivery, directly safeguarding \$6M in client media spend and preserving campaign ROI and executive trust
- **Client Impact:** Regularly presented high-stakes performance analyses to C-suite executives, translating complex data into actionable recommendations that secured multi-million-dollar renewals

Business Analyst

June 2021 – January 2022

- **Customer Acquisition and Media Optimization:** Designed and executed A/B tests to evaluate creative and media performance, increasing click-through rates (CTR) by 25% and reducing customer acquisition costs (CAC) by 18%
- **Ad Trafficking:** Streamlined processes for ad-hoc projects, reducing errors and saving 120 hours/week
- **Tagging & Measurement Strategy:** Deployed Floodlight tags, pixels, and event tags across Disney and ESPN+ campaigns, enabling full-funnel tracking and driving a 35% increase in attribution accuracy across CTV (Connected TV) and digital campaigns

PROJECTS

- **Predictive Modeling for Customer Acquisition Optimization:** Built logistic regression & decision tree models in R for bank telemarketing targeting, achieving 90% cost reduction and 2.5x net profit increase
- **Churn Prediction and Customer Retention:** Designed Python churn model with proactive retention strategy, optimizing at-risk customer offers to improve LTV by \$4.39M with 757% ROI
- **Market Segmentation for GTM Strategy:** Applied k-means clustering on demographic & psychographic data to segment small-car buyers, identifying high-MQL clusters and improving targeting for Ford's go-to-market strategy
- **Predictive Investment Strategy:** Engineered ML pipeline for LendingClub with return & default prediction models, delivering 28% portfolio return at 8.4% risk and 4x baseline ROI

AWARDS & ACCOMPLISHMENTS

- Two-time "Achiever" awardee at Publicis Media, recognized by the CEO for outstanding performance
- Elected to Student Leadership Council (among 127 peers); organized weekly forums to surface student feedback, guided decision-making, and championed diversity and inclusion initiatives for international students
- Classical Kathak Dancer; performed at university cultural events, promoting Indian classical art and cross-cultural appreciation