

ASTHA HARLALKA

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EDUCATION

CARNEGIE MELLON UNIVERSITY - TEPPER SCHOOL OF BUSINESS <i>Master of Science in Business Analytics – MSBA (Merit Scholarship Awardee)</i>	GPA: 4.00/4.0	<i>Pittsburgh, PA May '25</i>
NARSEE MONJEE COLLEGE OF COMMERCE AND ECONOMICS <i>Bachelor of Commerce (Financial Accounting and Auditing)</i>	GPA: 3.82/4.00	<i>Mumbai, India May '21</i>

WORK EXPERIENCE

DELOITTE CONSULTING US (Capstone - Carnegie Mellon University, Tepper School of Business) *Pittsburgh, PA*
Generative-AI Marketing Analytics Consultant *Jan '25 - April '25*

- **AI-Powered Marketing Analytics:** Built an AI persona simulation tool using LLMs & 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) *Mumbai, India*
Associate Manager, Marketing Analytics and Paid Media Optimization *Jul '23 - Jan '24*

- **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.

Ad Operations and Media Performance Analyst *Feb '22 – Jun '23*

- **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 spend efficiency and media delivery quality across campaigns.

Marketing Analyst *Jun '21 - Jan '22*

- **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.

Recognition: Two-time “Achiever” awardee, recognized by the CEO for outstanding performance.

CORE COMPETENCIES AND SKILLS

Programming Languages & Databases: Python, R, SQL (Advanced), BigQuery, NoSQL (MongoDB)
ML Frameworks: PySpark, Scikit, TensorFlow, PyTorch, XGBoost, Pandas, NumPy, Dplyr, LLMs & Prompt Engineering
Data & Automation: ETL/ELT Pipelines, Data Cleaning, Data Storytelling, Alteryx, Flask, Selenium, Git, Jira, Airtable
Visualization & BI: Tableau, Power BI, Looker, Advanced Excel, Figma, Canva
Digital Marketing Analytics: Google Analytics (GA4), CM360, DV360, Integral Ad Science (IAS), Google Tag Manager (GTM), CRM (HubSpot, Mailchimp), Adobe Analytics, Marketing Mix Modeling (MMM), Multi-Touch Attribution (MTA)
Experimentation & Causal Analysis: A/B & Multivariate Testing, Hypothesis Testing, Incrementality & Brand Lift Studies, Funnel & Conversion Optimization, Customer Segmentation, Predictive Modeling, Revenue Forecasting

DATA & MARKETING ANALYTICS 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.