

# Rawley Cooper, M.S.

New York, NY 10003 • (212) 529-5337 • Rawley.Cooper@analyticforensics.com  
Website: [www.analyticforensics.com](http://www.analyticforensics.com) • LinkedIn: [www.linkedin.com/in/rawley-cooper](http://www.linkedin.com/in/rawley-cooper)

---

---

## Senior Vice President—Advanced Statistical Analytics

**Strategic Data-Driven Insight • Advanced Analytics & Statistical Modeling • Cross-Functional Team Leadership  
Machine Learning • Big Data • Gamification • Business Intelligence Tools • Strategic Business Consulting**

**Astute statistical, marketing, and media analysis leader**, offering 20+ years of first-rate skills in delivering enterprise-level analytics solutions across various industry verticals—including automotive, financial services, insurance, technology, cable TV, telecom, retail sales, and foods and beverages. Skilled in designing high-level models, creating data driven insights, building integrated data vision, producing robust data platforms, delivering smart business intelligence, leading cross-functional teams of senior data scientists, and applying machine learning in both startup and Fortune 500 environments.

### CAREER ACCOMPLISHMENTS

---

- **Management Leadership:** 12 years of director-level experience as Chief Statistician & Methodology Lead at Nielsen with proven skills in leveraging advanced statistical analysis to provide actionable insights, identify trends, and measure performance in fast-paced environments, under high pressure, changing priorities, and tight deadlines. Demonstrated record of developing models and algorithms to drive innovation throughout the entire organization.
- **Machine Learning:** Expertly training, implementing, and evaluating machine learning models and leveraging broad-based experience in building data-driven products. Created predictive models for a variety of applications. Efforts included allocating charity funds for NY State, a 4-year website P&L, a 25-year sales forecast tool, product sequencing models, LTV models, and response models.
- **Statistical Modeling:** Extensive background in creating a variety of Marketing Mix Models. Some models involved up to 3 billion data points spanning up to 10 years of data and calculated down to retail store service area. Leveraged a variety of statistical techniques to make incomplete and incompatible databases into representative representations of the marketing universe. Efforts included high-level weighting, Bayesian matching, and missing data models.
- **Application Development:** As methodology lead and helped design and implement the entire Brand Effect suite of products (earning \$100M/year). This included “Digital Brand Effect”, “Spanish Brand Effect”, “Facebook Brand Effect”, “Snapchat Brand Effect”, and Creative Evaluation. Created the “IPP Evaluator” (a web based IPP Pricing tool); and built a “Brand/Artist Affinity” tool to help brands connect with performers to help match audiences for sponsorships.
- Programmed professionally in 37+ languages; including SQL, Python, R, and Java, SAS, Visual Basic, C++, and Assembler, MVS & PC Assemblers, C, Visual C++, Delphi, Visual Basic. Managed and coded multiple programming apps including:
  - A fully interactive “market targeting and analysis” system for Digital Eq. Corp.
  - A GUI sales and ACT database interface Tool for Kodak.
  - A Student Evaluation system. Sold by Training America.

### PROFESSIONAL EXPERIENCE

---

NIELSEN, NYC, NY; **Chief Statistician & Methodology Lead** 2005–2017

- Played an instrumental role in helping to grow the business from \$20M revenue to a \$100M revenue business. Duties ranged from day-to-day monitoring of key, mission-critical products to creating revisions for products.
- Helped implement methodology changes and improvements to Brand Effect products. Efforts included conducting major impact studies on changes, formulating new weighting and calculation algorithms, integrating diverse data sources into our systems, testing and validating changes, performed “wellness” studies, and in some cases coding system changes.
- Completed statistical studies sold directly to clients and generated direct revenue for Nielsen. Studies include: Marketing mix/survey attribute correlation studies, correlation maps, pod size and position analysis, statistical driver studies, custom weightings for ad campaigns on smart phones, tablets, and radio, and so on. Studies ranged from a few thousands to \$250K.
- Often called in as a “Fixer” when major data problems were discovered to identify root-causes and formulate methods to restate (fix) the data problems. Often multimillion-dollar contracts were at risk if the problems were not fixed.
- Consulted Nielsen-wide as expert in text parsing algorithms, weighting methods, gamification, and neural networks (machine learning algorithms).
- Added a statistical rigor to Brand Effect offerings, required by clients before purchasing products. This included Creative Evaluations (copy testing) product, our mobile ad measures, our Facebook offerings, and international offerings.

*Continued...*

**Nielsen Projects:**

- Created “IPP Evaluator” for Nielsen. This was a web-based product that helped major networks evaluate effectiveness of IPPs (In program placements). This allowed them to make up rate cards for IPP pricing and sales. Created statistical models that formed the engine of this product, developed the prototype, and helped code the web version. IPPs generated about \$7B in annual ad revenue for networks, and tool offered a scientific and defensible method of pricing IPPs.
- Developed and managed a series of statistical models that forecasted box office grosses of movies before they opened. Models were used by all major studios (through NRG, owned by Nielsen, the world’s leading movie tracking service). We would forecast movies opening in the next 4 weeks on a daily basis 52 weeks a year. Domestically, box office grosses were \$11B last year (for 700+ movies).
- Created Bayesian models to estimate “random guessing” and “cheating” behavior in Brand Effect surveys. Brand Effect does 12,000 surveys a night and reports on them next day, so random guessing and cheating behavior was a major issue. We estimate that as much as 20% of our surveys were “guessed” or “cheated” so these models allowed us to greatly improve our data quality by eliminating those fraudulent surveys.
- Created models that forecasted the engagement of new TV shows for the upcoming TV season. Engagement is used by some advertisers in contracts in the Upfronts (early TV ad buys); my models made these buys/guaranties possible.

**ANALYTIC FORENSICS, NYC, NY; Freelance Statistical Consultant / Modeler**

01/2002–2005

- Launched Analytic Forensics, a company that produced custom-built statistical models for marketing clients across multiple industries including telecom, pharmaceuticals, tech, cable TV, financial, retail, internet services, publishing, and education.
- Taught graduate statistics courses and graduate communication seminars for Columbia University.
- Lectured on Marketing Mix Modeling for a number of conferences, statistical, and marketing organizations.
- Created Marketing Mix Models to help a large retail chain to optimize \$500M per year media budget.
- Helped create an automated system for logistic regression modeling for a large advertising firm.

**WESTHILL MARKETING SCIENCES, NYC, NY; Director of Database & Statistical Analysis**

01/1994–01/2002

- Played an integral role in leading a team of 10+ analysts and managing a number of diverse analysis projects (including creating major marketing mix models), worked with cross-functional team to integrate analysis into total marketing programs, worked directly with clients on analysis, marketing, and strategic planning issues.
- Created a Marketing Mix Model for a media company’s \$150M marketing budget. Involved over 400 product/media combinations over 8,000 geographic areas.
- Helped design niche market websites for a large B2B technology company. Created models to select a balance of content, and predict click rates for the first year of operation.
- Created segmentations and customer scoring models for a large credit card provider. Helped launch several successful affinity cards.

**Previous Positions Held:** KRUPP/TAYLORUSA, NYC, NY; **Director of Marketing & Analytics**; EMPIRE BLUE CROSS & BLUE SHIELD, NYC, NY; **Senior Instructor/Supervisor**; WEST CHESTER STATE UNIVERSITY, West Chester, PA; **Professor**; MORGAN GUARANTY TRUST, DATA PROCESSING INSTITUTE & JOHNS HOPKINS UNIVERSITY, Baltimore, MD; **Instructor**

**EDUCATION**

JOHNS HOPKINS UNIVERSITY, Baltimore, MD, **ABD Mathematical Sciences**  
 JOHNS HOPKINS UNIVERSITY, Baltimore, MD, **Master of Science in Engineering**  
 COLUMBIA UNIVERSITY, New York City, NY, **Bachelor of Arts in Mathematics**

**PROFESSIONAL MEMBERSHIPS & AFFILIATIONS**

- Keynote speaker at the Westinghouse Atomic Energy Training Conference.
- Wrote articles for a number of trade publications; CBT Directions.
- Spoke at numerous professional conferences; including Ziff/Davis & DMA.
- Worked as stand-up trainer, instructional designer, CBT author, curriculum designer, and training needs analyst.
- Produced computer graphic illustrations for the book The Second Law of Thermodynamics by Scientific American.
- Produced real-time computer animation for shows like "Classic Concentration", "You're on a Roll", and "Where on Earth is Carmen Sandiego?"
- Created “training simulations” for the Army/Air Force during Desert Storm in 1990.