Adobe Research

Topics of interest for the University Marketing Research Awards Program include, but are not limited to, the following areas.

Analytics Cloud

Adobe Analytics

- What are good distributed techniques for anomaly detection and correlation detection, and contributing factors?
- How do we use distributed algorithms that work on large amounts of data to find the most important features that affect a certain outcome or describe a set of users?
- What are good scalable methods for marketing mix attribution and contribution of marketing channels to observed outcomes?
- What are good techniques for detecting seasonal or trending patterns and leading indicators?
- How can we predict and evaluate the overall lifetime value of a customer?
- Contextual and content analytics — How can we bridge visualization with creative assets and quantified/predictive impact?
- How can we use pattern recognition and machine learning to detect patterns in data derived from physical devices (Internet of things)?
- Data storytelling — How can automatic analysis (AI) be blended with natural language generation (NLG) to produce data stories, or narratives?

Audience Manager

- How do we conduct probabilistic stitching of cross-device identities (identify that a person is the same across desktop and mobile)?
- How do we automatically segment similar users based on cross-channel behavioral data? Identify characteristics that make them similar? How can we automatically create segments and look-alike scores for users?
- How do we identify the most influential third-party data providers for any given customer?
- How do we estimate the size of an audience based on its characteristics? How do we use probabilistic methods to identify percentage overlap between audiences or overlap of traits of users in an audience?
- Audience intelligence — How can we predict the behavior of a user or an audience segment?
- Audience planning — How can we recommend the right audience for a specific offer or product promotion?
Marketing Cloud

Experience Manager

- How can we automatically create great layouts for websites based on the content (text, video, images, navigation, cart, and so on) that’s needed on the site?
- How can we evolve or optimize website layout and content based on how users engage with the site? For example, adding a link to content that is often searched for or moving highly watched video to the top.
- How do we automatically convert paper or digital forms into responsive forms for mobile devices? How can we also include recognition of data entry fields and display tags?
- How can we be more intelligent (beyond responsive) about automatically optimizing content, layout, and site structure for different screen sizes (from smartphones to big screens)?
- How can we help the author of an experience by suggesting content (text, images, video) that complements the content that is already part of the experience? For example, by identifying mood or topic from text and images and matching new content with existing content.
- How can we make automatic suggestions to text for improved Google rankings?
- How can we construct and leverage ontologies (i.e., taking advantage of knowledge regarding concept hierarchies) in the tagging of assets for tag enrichment and visualization?
- How can we predict missing content on a page? Automatically author content? Tailor relevant content to different screens?
- How can we automatically tag images? Connect relevant images to written content?
- How do we determine a customer’s psychographics, and how do we find content that matches those psychographics?
- How do we find content relevant to a community of users? How can we suggest topics for new stories based on available content and external signals (like social media) and suggest available material that can be repurposed for this?

Target

- What is the most impression-efficient design of experiments?
- How can we recommend good content or creative for testing based solely on the characteristics of the content or creative, and based on the users who will see the creative?
- How can we automatically suggest and assemble good creative from a repository of assets?
- How do we recommend products to maximize conversion or engagement given product catalogs, video catalogs, websites, click streams, and conversion data?
• What is the best way to conduct automatic A/B testing of digital experiences, such as generating variations of layout or content, while adhering to aesthetics and brand requirements?
• How do we best analyze multiple concurrent A/B tests (not necessarily of the same duration) for the same user experience in order to avoid confounding effects?
• How do we incorporate into product search algorithms multiple requirements that take into account the end user's needs and the marketer's needs?

Campaign
• How can we help the author of an email improve the open rate by suggesting words for the subject line?
• How can we help the author of an email find the right audience by analyzing the content of the email and past recipient behaviors?
• How do we predict how many emails people are willing to receive over a certain period without running the risk they will unsubscribe?
• How do we predict or learn to match the right message or offer (or next-best offer) to the right audience, at the right time, on the right channel?
• How can we increase the chance a recipient will read an email by sending it at the right time of day/day of week?
• How can you determine the right type, number and timing of push messages (email, sms, notifications) to send a person to optimize probability of person to re/engage with a brand?

Advertising Cloud
• How can we do budget allocation, coordination, and timing of advertisements in a multichannel setting?
• What are good marketing models that combine offline and online consumer behavior?
• How do we build scalable, predictive models and optimization algorithms for targeting, bidding, and pacing in a real-time bidding marketplace?
• How do we predict consumers' buying propensity using cross-device data aggregation and analysis?
• What is the effect of price and inventory information on online ads based on consumer buying decisions?
• What are the best methods for attributing revenue to multiple marketing touchpoints and the frameworks to evaluate these methods?
• What are good techniques for revenue and cost estimation for long-tail biddable entities in online advertisements?
• How do we measure ad creative effectiveness in different channels and across devices?
• How can we automatically generate ad copy from data? For example, creating an ad using a hotel description or product article.
• What are good techniques to measure the effectiveness of online video advertising? How should advertisers spread their buys between branding vs. performance? Between television advertising and online video advertising?
• How do you detect fraudulent ad inventory and brand safety i.e. delivery of ad in the right context? How can we detect fraud in video tagging? Fraud in video ad consumption?

**Mobile**
• Location detection — How can we predict the current and future location of a customer from mobile analytics data?
• What are best knowledge models to drive chatbot-based conversations and experiences in mobile and new devices like Google Home and Amazon Echo?

**Social**
• For any given topic, how do we identify the people who are the thought leaders, influencers, and brand ambassadors?
• How do we measure the conversation around a brand and determine what else everyone is talking about in that space in order to drive those conversations? How do we extract topics and events from social data streams? Analyze sentiments of social posts?
• How do we filter noise from social conversations to hear only things that are relevant?
• What is the real impact of social media? Is it really just about likes and shares? How can we measure the impact of social media on a brand (both positive and negative)?
• How do we determine topics for conversation with a brand’s followers based on what is going on in the news, what the brand wants to communicate, and what fans are talking about?
• How do we predict community response to social posts? When should we start paying for promoting conversations? When does it make sense to publish information versus pay for placement?

**Adobe Media & Entertainment**
• How do we drive engagement with video content? How do we measure engagement with video content, and what are the factors that affect engagement?
• What are good techniques for discovering or recommending video content and channels?
• How can publishers optimize their content catalog?
• What is the right number and duration of ads for video content? How are ads affected by the surrounding content? How should advertisers value the context around the video advertising?