Amazon WW Advertising

Self Service & Performance Advertising:

The ***Advertiser Experience*** (AX) group owns the experience of the through the full lifecycle of self-service performance advertising management, from marketing to potential new advertisers through on-the-fly ad campaign optimizations. The Amazon Stores team within AX owns Amazon's self-service solution for brand owners to have an elevated shopping destination on Amazon sites worldwide. Our front-end stacks are based on NodeJS, ReactJS, and we use microservices architecture and big data processing for analytics. The Campaign Building and Portal team within AX builds our customer facing web applications for creating new advertising campaigns across multiple ad products. In addition to the modern UI technology this includes the development and presentation of advertising recommendations generated through our machine learning systems. The team also creates the portal technology used across Amazon advertising. The Reporting and Campaign Management team builds our campaign management systems, supporting advertisers and campaigns of all sizes around the world with graphical dashboards and sophisticated data presentation and visualization services. **(SEA/NYC)**

The ***Performance Ads Core Engine (PACE)*** group develops core advertiser services including registration, account management, ad product catalog familiarity, billing, data ingestion and analytical tools to help them leverage our key products such as Sponsored Products and Headline Search Ads. The Ad Catalog storage team owns the tool that notifies downstream systems such as Ad Server and Search Index about any ad performance changes in real-time, enabling advertisers to optimize when needed to increase ROI. The Account Management team owns the beginning of the advertiser lifecycle, from registration through the onboarding process. The Data Ingestion team creates the systems that store data streams particular to ad serving requests, number of ad impressions, and ad clicks (such as request to serve an ad, impression and click). We process this data in real time, applying business logic and performing transformations to ease large scale analytical processing of ad traffic. The Billing team controls the systems for end-to-end payment transactions with sellers. The Analytics team creates a self-service analytics system for sellers that enables them to drive performance with their strategies in a real-time manner. **(SEA/NYC)**

The ***Sponsored Brands*** team helps brand owners on Amazon to engage shoppers who are researching and exploring product options to drive brand discovery and build stronger customer relationships. We work on a broad range of areas including machine learning, distributed computing, large scale system design, spark big data pipelines, UI design and more. Our engineers and scientists are currently productionizing a deep learning model to understand the semantic meaning of search query and developing online learning capability through multi-armed bandit algorithms. **(SEA/NYC)**

The ***Advertising API*** team enables large-scale advertisers to programmatically access Amazon advertising products, campaign management, and reporting functionality across all marketplaces in which we serve ads world-wide. For advertisers and agencies without access to developer resources, we also provide web-based bulk campaign management operations and reporting through our own UI. Our goal is to enable advertisers, agencies and 3rd party solution providers to operate in a self-serve manner at scale, driving increased advertiser performance on Amazon. **(SEA/NYC)**

The ***Modeling and Machine Learning*** team owns ML solutions and infrastructure for applications such as sourcing and ranking, and driving better utilization of our supply and demand for Sponsored Products and Headline Search ads. We develop cutting edge predictive models using a range of techniques including deep neural nets, multi-arm bandits, linear and ensemble models. Our mission is to build performant machine-learning predictive models and scalable infrastructure to support Amazon's self-service performance advertising on products. We strive to deliver optimized models to match shoppers' intent that yields engaging ads experience for our customers while also optimizing advertisers' ROI. **(SEA/Palo Alto)**

The ***Category Acceleration team*** focuses on launching and accelerating the advertising business globally. We own the advertising experience for these global sellers end-to-end across placements, creative, ad serving, advertiser experience, operations, and marketing, as well as on mobile and desktop. We're looking for entrepreneurial and innovative individuals who thrive on solving tough problems, on thinking big, and on getting their hands dirty in order to delight our customers with best-in-class advertising solutions. **(SEA/Palo Alto)**

Advertising Engineering & Development

The **Audiences** team is a foundational part of ad products at Amazon. Our services analyze billions of behavioral signals to construct audience segments that will align with our advertisers' goals and deliver highly relevant ads to customers. To do this, we're building systems with a variety of technical challenges: from high throughput and low latency services that can vend audience signals in real time, to frontend tooling that an advertiser can use to create its own audience segments in our self-service systems. (SEA)

Enterprise Ad Products powers Amazon's programmatic offerings, enabling media agencies and self-service advertisers to run display ads across websites, apps, and video content publishers to deliver highly relevant ads to Amazon audiences at scale. We build everything from systems for distributed development, big-data analytics and visualization, NoSQL based persistence management, and client facing applications and APIs. We also power advertising in live streaming content such as live sports offered through Prime Video. (SEA/NYC/Austin/Vancouver).

The **Cornerstone** team owns systems responsible for serving display and video advertising across a variety of supply sources such as Amazon owned and operated websites and mobile applications, and third party sites and apps. The data, analysis and technical frameworks we build enable our systems to handle the demands of scaling the display ad business, enabling both enterprise managed self-service and small business self-service growth. Operating at the intersection of low latency, distributed systems, and machine learning, our work allows advertisers to make incredibly precise and impactful decisions that directly impact their ad performance. (SEA/NYC)

Measurement and Data Science develops machine learning algorithms and high performance, petabyte-scale distributed systems utilizing big data and streaming technologies to report and optimize advertising. Our innovative engineers and machine learning scientists sit at the intersection of two vast data sources - leveraging e-commerce data to optimize advertising and measuring advertising impact on e-commerce events. Our systems process billions of ad impressions daily to power all of Amazon's advertising reporting and our display advertising algorithms for optimal audience targeting, real time ad ranking and bidding, and automated campaign optimization. (SEA/Boulder)

On the **Video Shopping Experience** team, our mission is to create and distribute video content to help Amazon customers make better shopping decisions. Our full stack system enables professional/amateur video content creation, leverages algorithms to tag and curate video content, and builds engagement features to amplify distribution on and off Amazon. Our "Creator Tools" team in NYC is working on a product that offers stream ingestion capabilities, a multichannel front end experience and toolset that will allow us to scale our programming. Our creation team is focused on building frictionless experiences for users to submit product related videos. Our curation and insights team employs image recognition and natural language processing to rank relevant videos and measure their impact on sales and engagement. Our distribution team is focused on building very low latency video experiences for Amazon scale and regularly partners with teams that impose a zero incremental millisecond (latency neutral) feature change requirement. Our engagement team is focused on building features like creator badges, hearts, and user tags that enrich the video and provide insight back to creators. (SEA/NYC)

Analytics and Data Management teams drive the measurement and insights that enable brands to see the value in their advertising investment with Amazon. We develop high performance, petabyte-scale distributed systems utilizing big data and streaming technologies and machine learning algorithms to measure and optimize advertising investments to bring insights to all of the transactions we process daily. We deliver insights utilizing AWS services such as Elastic Map Reduce, Redshift, Kinesis and Dynamo DB as well as Hadoop, Spark, and Presto. Our main goal from this is to help sellers and media agencies drive performance in their advertising campaigns across various channels and ensure they are seeing a high ROI. We love to drive results with data and we get to do so from the beautiful foothills of the Rocky Mountains offering a huge variety of activities to keep both your mind and body in great shape. (Boulder)

Display Advertising

The **Device Advertising** team's mission is to create both the client side software and large scale advertising solutions that enable Amazon to lower device prices, and add value to our customers' device experiences. We work on cutting edge Amazon device technology, building device-specific ad products for FireTV, Fire Tablet, and Kindle eReaders without the top-down schedule of hardware-focused teams. (SEA/Sunnyvale/Austin)

The **Ad Placement & Supply** group owns advertising supply across Amazon. We create, configure and manage new advertising real estate within Amazon. We own the front-end stack – the widget and ads libraries that sit on the page along with a run-time engine that drives ad flow for shoppers worldwide. Our engineers leverage full-stack technologies (front end, scaled services, machine

learning and optimization), with our charter being to deliver compelling shopping experiences optimized to user interests and matching advertiser demand to Amazon supply in a high-scale, low-latency environment. We work closely with economists, data scientists, sales, and product teams to run efficient pricing algorithms to ensure strong advertising performance and revenue growth for our global customers. (SEA/NYC)

Brand Advertising helps sellers and brand owners reach new customers that may not be aware of their products or services. Our mission requires building many new systems (front-end, back-end and analytics) from scratch that will scale and enable discovery of new products for Amazon's customers. (SEA/NYC)

Advertising Content Experience

The *Content Experience* team lives and breathes startup philosophies; approaches like prototyping, rapid iteration, and customer validation. We're hiring engineers with a background in any of the following areas: full-stack development, iOS, machine learning & optimization algorithms, video playback & performance, and building low-latency systems. We're specifically looking for engineers comfortable wearing a product hat; engineers interested in the customer experience. (SEA)

The *First-Party Digital* team owns the development of new products and services driven by Amazon's first-party sellers. We are driving new initiatives to make smarter marketing decisions and improve our relevance to customers; by moving away from traditional measurement standards and building increasingly sophisticated and insightful decision engines. We manage massive advertising programs at scale, generating billions of impressions. One of the major challenges we are solving includes integrating petabyte-scale distributed retail systems into a singular service to synthesize e-commerce data into predictive models and optimization opportunities. (Boulder)

Advertising Sales Management

Advertising Sales Analytics and Technology is focused on improving the ad sales and account management teams' productivity through technology*.* This includes building a content management system and a self-service academy/training feature all integrated into an advertiser portal, building effective communication channels to interact with advertisers and building advertiser insights that combine elements of machine learning, big data, real-time analytics, and event based processing to give our advertisers actionable data at the right time. Our services will be exposed through a variety of web and mobile systems*.* (SEA/NYC/Vancouver)

Marketing Insights

The *Analytics and Insights (A&I)* Engineering team is responsible for implementing big data systems designed to unearth key performance metrics that will drive greater success by top tier brands. By processing and aggregating petabyte scale data sources, we aim to distinguish Amazon as a premiere online advertising service provider. With opportunities to build brand new data pipelines and services, this team offers a unique opportunity for engineers to solve interesting problems and have a direct impact on the growth of the advertising business. (NYC)

Advertising Customer Success

The *Direct Display Advertising* business is a growing one. In order to scale, the Global Scaled Ad Services Tech team is working to build the next generation workflow applications which are scalable, have rich self-service graphical interfaces, and provide ease of navigation and integration with the core system. The team is designing solutions that ensure robust backend interfaces with multiple scalable web services including big data analytics and machine learning. (NYC)