

RAHUL PANDEY

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PROFESSIONAL SUMMARY

Engineering leader with 18+ years building scalable products and managing high-performing teams at Amazon and Google. Proven track record delivering \$250MM+ revenue programs, launching products to 200M+ users, and leading organizations up to 25 engineers. Expert in distributed systems, machine learning, advertising technology, and cloud infrastructure with demonstrated success launching products at scale using emerging technologies including LLMs and speech recognition.

WORK EXPERIENCE

Engineering Manager, Amazon Ads Products Monetization (APM)

Amazon, Seattle, WA | Mar 2025 – Present

- Led engineering team building distributed ad serving infrastructure for 70M+ Fire Tablets and Alexa devices, processing 2B+ daily ad requests with sub-100ms p99 latency and 99.99% availability
- Drove programs that enabled \$100MM+ in annual revenue across Fire Tablets and Alexa display ads, including display and conversational ads on Alexa+, deals and video ads, and local sponsored services ads
- Optimized Fire Tablets operations by implementing leaner operating model that delivered \$300k+ annual AWS and infrastructure cost savings, reduced sustaining team by 70% while growing year-over-year revenue by 15%
- Deployed Amazon Q-based coding agents and custom automation tools across team workflows, reducing development time 60% and automating documentation tasks (Press Release/FAQ, High-Level Design, test plans, status reports) by 80%

Engineering Manager, Amazon Photos

Amazon, Seattle, WA | Jul 2022 – Mar 2025

- Managed multiple teams of engineers and TPMs owning photos experiences on Echo Show and Fire TV devices including AI-powered semantic search using conversations, personalized photo frame displays, shared photo albums, ambient mode screensavers, and customizable slideshow presentations
- Led personalization integration across Alexa and Photos iOS/Android applications that increased new customer acquisitions by 35% and monthly active users (MAU) by 12%
- Drove architecture and rollout of semantic search of Photos on Alexa+ across Echo Show, mobile, and web, implementing large language models (LLMs) and natural language processing (NLP) to enable intuitive photo discovery and retrieval
- Launched Photos+ premium subscription program on Echo Show devices that allowed the devices to be converted into standalone photo frames powered by Amazon Photos and generated a new recurring revenue stream for non-storage monetization

Technical Program Manager, Google Cloud Programs

Google, Kirkland, WA | Sep 2021 – Jul 2022

- Drove product roadmap for Google Cloud Billing platform, focusing on billing transparency and cost predictability for enterprise customers
- Led cross-functional initiatives delivering cost and usage data exports, project hierarchy-based reporting, and committed use discount attribution to improve cost visibility for enterprise customers

Engineering Manager, Alexa Automatic Speech Recognition (ASR)

Amazon, Seattle, WA | May 2018 – Sep 2021

- Managed organization of engineers and TPMs across multiple teams, owning Alexa's Tier-0 ASR service, processing 500M+ daily voice requests worldwide across 15+ languages with 99.99% availability and sub-200ms p99 latency

- Partnered with ASR Science teams to deploy incremental machine learning models that reduced Word Error Rate (WER) 15% year-over-year, improved Real-Time Factor (RTF) to 0.3x, and decreased infrastructure costs 25% through model and infrastructure optimization
- Delivered gRPC/REST APIs for Natural Language Understanding (NLU), Dialog State Tracking, Speaker ID detection, whispered voice detection, dynamic language detection, and intent classification across Alexa's microservices architecture

Engineering Manager, Amazon Mobile Shopping Ads

Amazon, Seattle, WA | Oct 2017 – May 2018

- Led product development and launch of a native video advertising platform in Amazon Shopping iOS app search results, managing team of front-end and full-stack engineers
- Architected reusable ad template framework enabling rapid onboarding of 30+ premium advertisers, driving \$10MM revenue target through native video ad integration
- Optimized video streaming performance with adaptive bitrate streaming and client-side caching, improving video start time while maintaining ad viewability SLAs

Technical Program Manager, Amazon Prime Now

Amazon, Seattle, WA | May 2016 – Oct 2017

- Established a full-stack engineering team to build Prime Now's native platform for inventory and in-stock management across 100+ fulfillment centers and 8+ countries worldwide
- Architected microservices processing 10M+ daily inventory transactions and accelerated the launch by integrating with 15+ legacy Amazon Retail systems enabling rapid deployment of inventory management and forecasting capabilities without building from scratch

Technical Program Manager, Amazon Photos and Amazon Devices

Amazon, Seattle, WA | Aug 2013 – May 2016

- Orchestrated Prime Photos launch to 200M+ Amazon Prime subscribers globally, driving 30%+ increase in Photos app MAU engagement metrics through cross-functional coordination across device teams, mobile platforms, and backend services (S3, CloudFront, DynamoDB)
- Optimized Cloud Drive Services architecture through capacity planning and performance tuning, reducing system load 45% and API p95 latency 35% to support scaled Prime Photos rollout
- Managed product launches for Amazon Dash Button (Gen 1 & 2) and Echo Look, coordinating execution across 15+ engineering teams spanning hardware, firmware, mobile apps, and cloud services

Technology Analyst, Bank of America Corporate Treasury Technology

Bank of America Merrill Lynch, New York, NY | Jun 2011 – Aug 2013

- Developed reporting and analytics infrastructure supporting liquidity risk management platform for Basel III regulatory requirements (LCR, NSFR) and Dodd-Frank stress testing
- Engineered data integration pipelines consolidating data from multiple systems for regulatory compliance and strategic decision-making

Technical Lead & Business Analyst, WellPoint/Anthem

UST Global, Los Angeles, CA | Jan 2006 - Apr 2010

- Led SOA-based modernization of WellPointRx pharmacy e-business portal during WellPoint-Anthem merger, architecting HIPAA-compliant integration layers for multi-million-member base
- Directed offshore/onsite engineering teams through platform redesign from legacy J2EE stack to service-oriented architecture with CI/CD pipelines

EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Master of Information Systems Management | May 2011 | GPA 3.8

Mahatma Gandhi University, India

Bachelor of Technology in Electronics and Communications | Oct 2005