

Fahad Zafar

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Director of Engineering specializing in large-scale, multi-region services, AI-driven systems, and high-impact engineering organizations.

WORK EXPERIENCE

Director Software Engineering, Warner Bros. Discovery *April 2024 – present (1 year, 8 months)*

Senior Software Engineering Manager, Warner Bros. Discovery *Jan. 2022 – April 2024 (2 year, 3 months)*

CNN Digital Commerce (www.cnn.com/cnn-underscored).

- Directed commerce and ads engineering initiatives driving revenue optimization across content and page platforms.
- Built and scaled high-performing engineering teams through hiring strategy, vendor partnerships, and AI/analytics integrations.
- Led development of price intelligence and deal-identification systems across top 10 merchants.
- Owned international expansion, CMS modernization, and cross-team workload strategy for platform, ads, and commerce orgs
- Championed AI adoption (OpenAI, Claude) to deliver content automation, chat, summaries, and gifting experiences.
- Architected CNN Commerce product, merchant, and offer platform enabling dynamic pages, pricing automation, Snowflake analytics, Fastly CDN edge compute services and streamlined editorial workflows.
- Established third-party partnerships for social marketing and content syndication, contributing to double-digit YoY revenue growth.
- Drove customer experience, page performance improvements and operational efficiency via A/B testing, Core Web Vital (CWVs) optimization, Amazon API integration, and AI frameworks.
- Provided technical and organizational leadership for three CNN Commerce engineering teams, aligning execution to revenue targets and company strategy.

Software Development Manager, Amazon Web Services (AWS) *Jan. 2021 – Jan 2022 (1 year)*

Software Development Engineer, Amazon Web Services (AWS) *Sept. 2019 – Jan. 2021 (1 year, 4 months)*

AWS Commerce Platform.

- Led AWS-based global commerce platform initiatives using IaC (CloudFormation), Python, and Java across 20+ regions, including isolated and regulated environments.
- Architected regional pricing, invoicing, logging, and search services supporting millions of daily requests with strict compliance and data isolation requirements.
- Built and maintained services handling billions of invoices for monthly bill-run operations.
- Built and launched an ML-powered product service using SageMaker to solve region-specific commerce challenges, improving regional feature parity and decision accuracy.
- Directed zero-downtime security and infrastructure migrations supporting hundreds of internal services, including automated ticket assessment, data synchronization, SQS redrive pipelines, and credential rotation.
- Established standardized regional deployment architecture for prime, isolated, and base regions, reducing new-region launch time by 50%+ and improving operational reliability.

Software Engineer, Vectorworks Inc. *Jan. 2015 – Sept. 2019 (4 year, 8 months)*

Research and Development.

- Built ML-driven web services for large-scale data processing using TensorFlow.
- Developed a high-performance Point Cloud plugin for Vectorworks handling **100GB+ datasets** ([link](#)).
- Integrated AWS for remote execution of compute-intensive workflows; delivered cross-platform C++ solutions (macOS, Windows).

Software Engineering Intern, Amazon Inc. (Lab126) *May. 2014 – Aug. 2014 (4 months)*

- Developed a multi-threaded depth-map extraction system generating point clouds using the plane sweep algorithm with OpenCV and C++ for Amazon Fire Phone.

Software Engineering Intern, Google Inc.

YouTube (Data Analytics).

- Wrote the utility used for solving the Slowly Changing Dimensions problem for the columnIO tables in the YouTube data warehouse using map reduce on Terabyte sized datasets.

YouTube (Video Editor).

- Integrated the slow motion and other video effects into the YouTube video editor.

SKILLS, TECH. & PERSONAL PROJECTS

- Used Google Vision API to extract clips from 8-10+ hour streaming videos. Built a custom model for text extraction. ([link here](#))
- Developed an AI-driven system for automated video creation with voice-over, leveraging Stable Diffusion. ([link here](#))
- Recognized code reviewer for critical open-source projects including Unreal Engine and Elasticsearch. ([link here](#))
- AWS (S3, lambda, SageMaker, Dynamo, CloudFormation, SQS, SNS, etc.), Fastly, Computer Vision & AI (TensorFlow, StableDiffusion, OpenCV, OpenAI), C++, Java, Python, PostGres, Snowflake, DataDog, JavaScript ES 5, Vue, Node.js, MPI, OpenGL, SQL, Android.

EDUCATION

University of Maryland Baltimore County (UMBC)

- Ph.D. in Computer Science (Computer Science)
- M.S. in Computer Science (Computer Science)

Jan. 2010 – Dec. 2014 (4 year, 11 months)

Jan. 2008 – May 2010 (2 year, 4 months)