

Rohan Erasala

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PROFESSIONAL EXPERIENCE

Amazon

Software Development Engineer

New York, NY

February 2024 - Present

- Unallocated data in Sponsored Display Campaigns- Re-architected data pipelines to support displaying unallocated data by migrating to new internal query language in Java data gathering backend service, and added support for a custom unallocated row in data tables. This resolved discrepancies in ~20 million global sponsored display ad campaigns, as well as eliminated 25 customer support tickets per week.
- AMC Custom Audience Targeting - Introduced Amazon Marketing Cloud custom audiences as a new card and audience selection experience in the sponsored display audience targeting component using React + Typescript. Implemented parallel API calls to gate access to eligible advertisers with no latency impact. This feature was presented as a new feature at Amazon: Unboxed 2024 and is currently used by ~100k advertisers.
- API development and migrations - Built a custom internal API for retrieving dropdown information using AWS AppConfig + Lambda + DynamoDB, reducing UI load times by 40% with 100% availability on 60k daily requests. Implemented methods such as in memory cache and thread safe singleton design patterns with Dagger for 60% reduction in latency. Created a full CI/CD pipeline and onboarded 2 consumers to this API for similar use cases.
- Sponsored Television Audience Report - Led the introduction of 23 new audience reporting metrics for sponsored television advertisers by designing new data aggregation retrieval methods in Java backend-for-frontend, and UI components in React + Typescript. Created a client side filter and sort mechanism that reduced API calls by 50% and reduced latency by 46%. In use for 250k advertisers worldwide.
- Generative AI adoption - Responsible for driving teamwide adoption of internal generative AI tools. Created documentation on onboarding to internal MCP servers, leading to a 90% team generative AI adoption rate. Developed multiple AI agents to automate deployment infrastructure and support on-call rotations, resulting in a 60% decrease in deployment preparation time and 34% increase in team SLA compliance.

Software Development Engineering Intern

May 2022 - August 2022

- Employee Scheduling Web Application - Created a serverless web application to track employee schedules using the AWS Cloud Development Kit and Typescript + React. Designed a NoSQL database with DynamoDB capable of efficiently scaling up to 1M+ users with full version control, GraphQL resolvers + AWS Lambda.

EDUCATION

Johns Hopkins University

M.S Artificial Intelligence

Baltimore, MD

Aug 2023 - Present

University of Michigan - Ann Arbor

B.S.E Computer Science, Magna Cumme Laude

Ann Arbor, MI

Sep 2019 - May 2023

RESEARCH

Rohan Erasala, Ian McCulloh. "Tweets to Touchdowns: Predicting National Football League Achievement from Social Media Optimism." International Journal of Sport and Health Sciences, vol. 18, no. 11, pp. 616–620, World Academy of Science, Engineering and Technology, Open Science Index 215, 2024.

SKILLS

- **Programming:** Python, Java, C++, Typescript, Javascript
- **Design:** Figma, Sketch, Adobe Photoshop, UserTesting
- **Frameworks:** NumPy, Pandas, TensorFlow, Keras, scikit-learn, React.js, Next.js
- **Cloud:** AWS (DynamoDB, Lambda, IAM)