

Arnab Saha

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Senior Backend Software Engineer with over 9 years of experience designing, building, and deploying scalable, cloud-native solutions on AWS. Proven track record of leading complex projects from concept to launch, delivering significant business value through reduced operational costs, enhanced customer experiences, and a deep focus on operational excellence.

EDUCATION

North Carolina State University

Raleigh, US

Masters in Computer Science

Aug 2015 – May 2017

West Bengal University of Technology

Kolkata, India

Bachelor of Technology

Computer Science and Engineering

May 2009 – May 2013

LANGUAGES

Java, JavaScript, TypeScript, Python, SQL, C++

AWS

Lambda, Connect, Postgres, EC2, S3, Kinesis, SQS, Bedrock, SNS, ECS, Open Search, Kubernetes, CloudFormation, VPC, Code Pipeline, Lex, X-Ray, IAM, Cloud Watch, Cognito, SAM, Cloud Trail, Athena, Glue, API Gateway, Event Bridge, Secrets Manager, Datasync, Incident Manager, Step Functions

FRAMEWORKS/TOOLS

Spring, Micronaut, CDK, Kubernetes, Git, Datadog, Salesforce, CDK, Jira, Auth0, PagerDuty, Okta, SharePoint, Oracle, ArgoCD, Postman, CI-CD, DevOps, Confluence, Service Now, Auth0, Co-pilot, Prefect

DATABASES

Amazon Aurora, DynamoDB, Oracle, OpenSearch, Redis, MySQL

ACCOMPLISHMENTS

- Winner of Amazon Go Hackathon. (Nov, 2018)

WORK EXPERIENCE

Atelio by Fidelity Information Services, WA | Senior Software Engineer II Sep '24 – Present

- Lead Engineer in the *Know Your Customer (KYC)* team.
- Built a **Know Your Customer solution** from concept to deployment, incorporating document verification, device profiling, and real-time selfie, phone, email, and sanctions checks. Successfully onboarded two major banks for in-branch verification, facilitating thousands of verifications. This reduced the customer verification time from days to minutes through automation and minimal manual intervention, resulted in **8% decrease** in fraud account openings, and provided crucial feedback for product iteration.
- Designed and built a highly accurate **sanctions screening service** from the ground up, capable of processing user information (name, DOB, address) to determine sanctions list presence. This solution has been widely adopted by internal teams and external clients, demonstrating over **99.9% accuracy** in identifying sanctioned entities and bolstering regulatory compliance.
- Developed a robust **sanctions ingestion service** responsible for seamlessly integrating third-party sanctions data into the database, ensuring the sanctions service has immediate access to the latest information for real-time lookups.

SunPower, WA | Staff Software Engineer

Jan '23 – Sep '24

- Lead Engineer in the *Customer Care Development* team.
- Architected, built, and deployed a chat platform integrated within the MySunPower app. Leveraging artificial intelligence, the system intelligently understands customer queries to recommend relevant articles for immediate issue resolution. For more complex concerns, the platform routes the customer to a live agent either via chat or a callback feature. This solution currently serves approximately **4,000** customers daily, with around **3,500** of them being connected to live agents.
- Led the effort in transforming SunPower's customer support infrastructure by phasing out the old contact center and developing an in-house solution utilizing Amazon Connect. Managed the migration of 5.7 million customer call records to S3, ensuring data accessibility. This solution achieved **\$700,000** in annual savings by cutting contact center expenses from \$1 million to \$300,000 in 2023.

Amazon.com, WA | Software Development Engineer II

Aug '18 – Jan '23

Alexa Shopping

- Worked in the *Alexa Shopping Purchase Experience* team.
- Engineered and launched a revamped multi product customer experience for Buy, Search, and Reorder item on Alexa display devices. Leading a skilled team of three engineers, I oversaw both front-end and back-end development for this enhanced user interface. This experience is used by **10,000** customers every day and over **1,000** purchases are made using the CX daily.
- Created a new process for reporting on the weekly operational issues for all the teams in Purchase Experience and surfacing it to the leaders. These process improvements helped create better monthly operational reports and address the operational pains of the teams. The new process was later adopted by all the teams under the director.

Amazon Go

- Worked in the *Customer Shopping and Receipts* team.
- Designed and developed the support for hundreds of customers in a single session for Amazon Go Grocery. These optimizations were critical to the launch of Amazon Go Grocery. Additionally, it reduced the average checkout latencies by **30 secs** and for sessions with more than 5 customers, it reduced by 1 min.

PREVIOUS EXPERIENCE

Hughes Network Systems, MD | Software Developer 2

Jul '17 – Jul '18

North Carolina State Univ, Raleigh, NC | Teaching Assistant

Aug '15 – May '17

Global IDs, India | Software Developer

Aug '13 – Jul '15