

Arnab Saha

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EDUCATION

North Carolina State University

Raleigh, US

Masters in Computer Science

Aug 2015 – May 2017

GPA: 3.63/4.00

West Bengal University of Technology

Kolkata, India

Bachelor of Technology

Computer Science and Engineering

2009-2013

GPA: 8.41/10.00

COURSEWORK

- Software Engineering
- Automated Software Engineering
- Game Based Learning
- Design and Analysis of Algorithms
- Automated Learning and Data Analysis
- Data Intensive Computing
- Artificial Intelligence
- Computational Applied Logic

PROGRAMMING

Java, SQL, R, C, C++, C#, Python,
Android, Matlab, PHP, HTML5, CSS,
JavaScript

TECHNOLOGIES

MySQL, AWS, DynamoDB, EC2, Kinesis,
S3, SQS, SNS, Elastic search, Lambda,
Oracle, MongoDB, Graph Databases,
Android Studio, Google Web Toolkit,
Sencha, D3, Web Services, Git, Linux,
Rest API, Agile development

ACCOMPLISHMENTS

- **Winner** of Amazon Go Hackathon. (Nov, 2018)
- **Best Final Year Project** during undergraduate study from West Bengal University of Technology, India. (Aug, 2013)
- **Star of the Batch Award** for best performance and project work during the summer internship at Hewlett Packard, Kolkata, India. (May 2012 - July, 2012)

WORK EXPERIENCE

Amazon.com, WA | Software Development Engineer 2 Aug '18 – Present

- Technologies worked on: **Java**.

Alexa Shopping

- Works in the *Alexa Shopping Purchase Experience* team.
- Designed, developed, and launched a new customer experience for Buy/Search/Reorder item on Alexa display devices. Led a team of 3 engineers to build the experiment and the front-end and backend for the new experience. This experience is used by ~3k customers every day and ~1k purchases are made using the CX daily.
- Designed, developed, and launched a new customer experience for *Add item to cart* on Alexa display devices. Built both the front-end and back-end part for the experience. This experience is used by ~500 customers every day.
- 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.
- Designed and implemented the EU data regulations (GDPR) for the services. This work was to ensure safe and automated delete of any data older than 30 days and to migrate all the 17 consumers to the GDPR compliant store without any downtime. This work unblocked the Amazon Go launch in UK.
- Developed a framework to write realistic load tests that can stress our services to scale for Amazon Go Grocery. This enabled our team to debug and fix the services which were the bottlenecks for Amazon Go Grocery launch.

Hughes Network Systems, MD | Software Developer 2 Jul '17 – Jul '18

- Technologies worked on: **Java, JavaScript, MongoDB, Rest API**.
- Worked in the *Network Management System* team.
- Developed an application which collects real-time statistics from the network devices and stores in *MongoDB* and visualize the data in graphs.
- Created several *RESTful* APIs to get the stats from *MongoDB* in *JSON* format.

North Carolina State Univ, Raleigh, NC | Teaching Asst. Aug '15 – May '17

- Teaching Assistant for the courses, *Discrete Mathematics* and *Operating Systems*, Spring '17 and for the course *C and Software Tools*, Fall '15, Spring '16 and Fall '17.

Global IDs, India | Software Developer Aug '13 – Jul '15

- Technologies worked on: **Java, Swing, Google Web Toolkit**.
- Worked in the field of *Data Discovery and Profiling* in **RDBMS** and **HDFS**.
- Designed and developed a framework for data retrieval from Graph Databases – *Titan*, *Neo4j* and *InfiniteGraph*.
- Developed a *data monitoring application* to track data/schema changes in multiple time instances to visualize changes in the data/schema chronologically.