

# GOURAV AGRAWAL

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## EDUCATION

Arizona State University (ASU) | Master's in Computer Science | Tempe, AZ | 3.72/4

May 2021 (Expected)

Vellore Institute of Technology (VIT) | Bachelor's in Computer Science | India | 8.55/10

May 2017

## TECHNICAL SKILLS

Java, Python, JavaScript, **AWS (Certified Developer Associate)**, Node.js, HTML, CSS, SQL, Angular, ReactJS, Redux, Django, Spring, Apache Ignite, Apache Spark, REST APIs, GraphQL, Git, Docker, Terraform, Linux, Jenkins, JIRA, Agile

## WORK EXPERIENCE

Phoenix Water Solutions | Software Engineer Intern | Tempe, AZ

May 2020 – Jul 2020

- Delivered a multi-utility management and billing software with role-based user interface.
- Setup CI/CD pipeline using **GitHub actions** to automate the deployment of **dockerized Django-React** app into **AWS Fargate**.
- Charted a relational database schema (with over 30 tables) which is flexible and scalable enough to grow with the business.
- Created CRUD components using React/Redux and a **Test Driven Development** of RESTful APIs using Django Rest framework.

University Technology Office | Data Analyst | Arizona State University

Nov 2019 – Present

- Responsible for building the ASU data catalog platform in **Collibra**.
- Developed automated jobs for ingesting metadata from **Amazon Redshift, Aurora, PeopleSoft** and **Alteryx** using **Python**.
- Devised a **serverless** web app using **Amplify** and Angular to help data stewards easily interact with AWS services and Collibra.

BlackRock | Software Engineer | Gurgaon, India

Jan 2017 – Jul 2019

### Snapshot Publisher

- Spearheaded a web application from ground up using **Angular 6, Java** and **Spring** currently in production.
- Researched and Implemented **Apache Ignite** as a distributed in-memory cache, leading to more than 10x the upsurge in performance and speed.
- Implemented dynamic on-the-fly querying operations on Ignite cache to handle large datasets using **ag-grid** server-side row model.
- Developed reusable web components using Angular and used **Redux** for state management and user authentication.
- Integrated **Highcharts** and **D3.js** interactive visualizations for displaying analytics/insights in the portfolio performance.

### Snapshot Cache

- Deployed **RESTful** web services using **Spring Boot** and oversaw the load testing and performance tuning for the API.
- Reduced the response time of API from 8-35 secs to 0-3 secs by using composite indexing and SQL query optimization techniques.

### Aladdin for Corporate Treasury (aCT)

- Fast-tracked the front-end development of aCT, meant to replace the 3<sup>rd</sup> party tool, in turn saving approx. \$1 million yearly.
- Designed **wireframes** and released multiple screens and features like bulk file upload and admin dashboard as a part of it.

### Snapshot Controller

- Automated the manual efforts of deploying financial metrics reports by developing a **Spring Integration** based application, reducing 45-man hours of work monthly. Further, engineered the application to work as a generic task dispatcher framework.
- Asia-Pacific finalist (> 100 teams) in a BLK global hackathon for automating and digitalizing the client reporting process.
- Awarded 'Outstanding Performer' (<5%) consecutively for two years at BlackRock.

## ACADEMIC PROJECTS

Database Management System Implementation | ASU

Spring' 2020

- Implemented a Big table like Database Management System by extending Minibase components as the building blocks.
- Handled logic for maintaining heap files (and relevant index files) based on storage types and for records insertion and deletion.

Traffic Flow Prediction | Statistical Machine Learning | ASU

Fall' 2019

- Prototyped a 2-step short-term traffic flow prediction model using **deep neural networks** like Stacked Auto Encoders and LSTM.
- Collaborated with 2 others to extend the model to withstand shocks like accidents, lane closure, weather etc.

Meal prediction using CGM dataset | Data Mining | ASU

Fall' 2019

- Devised a model to predict meal intake of a type-1 diabetic patient using continuous blood glucose level monitor data.
- Extracted meaningful features from the time-series data and achieved an accuracy of 77% using **supervised clustering** technique.