



ADITYA BARSAINYA

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EDUCATION

University of California San Diego (UCSD), San Diego, CA

Master of Science in Computer Science

September 2021 - December 2022(exp.)

GPA: 3.9/4

M.S. Ramaiah Institute of Technology, Bangalore, India

Bachelor of Engineering in Computer Science and Engineering

August 2014 - June 2018

GPA: 9.39/10

WORK EXPERIENCE

TERADATA

Software Engineer Intern | Cloud Incubation Team

San Diego, California

June 2022 – September 2022

- Designed and Developed RBAC (Role Based Access Control) module using GitLab OpenID and HashiCorp Vault to provide role and policy-based access control using the OAuth2.0 framework.
- Enhanced AMIMAN service to handle the lifecycle of an EC2 image and allow event-based publishing of AMI to different AWS regions. Also added API support to add and modify the AMI type configuration using FAST API and PostgreSQL.

University of California San Diego

Graduate Teaching Assistant

San Diego, California

March 2022 – Present

- TA for the course CSE-124 Networked Services in Fall 2022, and CSE-185 Advanced Bioinformatics Laboratory in Spring 2022. Responsible for conducting labs, office hours, and discussion sessions.

GRAB

Software Engineer | Payments Core Team

Bangalore, India

December 2019 - August 2021

- Developed Payment SDK to provide a unified payment experience, the primary focus was to consolidate the wallet landscape to make it more user-friendly which resulted in 100% retention and a 28% Increase in the userbase.
- Reduced 85% of CE Ops work by introducing features like auto-reject payment requests and bulk request processors. Built a user data ingestion Kafka pipeline to stream out the crucial transaction data to the Finance Team.
- Lead a team of 4 people to work in the agile environment, worked as Scrum master and conducted KT session.

Software Engineer | Digital Marketplace Team

July 2018 - November 2019

- Launched Bill payment solution by building scalable microservice in Go using AWS step function, Amazon RDS, Redis and hosted on AWS cloud. Which resulted in a total of 8% TPV uplift in the whole Grab ecosystem.
- Reduced 63% of transaction fraud by remodelling payment flows through Implementing Authorize and Capture architecture using Go Dispatcher and Kafka. The new architecture was able to handle 250K requests per day.
- Spearheaded the development of an Auto-Settlement module to settle payments directly with merchant and allow multiple aggregators to be onboarded for the same product and helped reducing manual work by 71%.
- Received SPOT award by peer nomination at Grab for contributions to Grab Pay Digital Marketplace platform across Southeast Asia.

Intel Technology India Pvt Ltd

Application Developer Intern | Enterprise Data Warehousing Team

Bangalore, India

January 2018 - June 2018

- Developed an ETL application to perform data modelling and reformatting using Teradata and Ab Initio. Other key features of application Included Data Quality checks, Logging and Metadata maintenance.
- Accommodated 17% more data just by expanding the database by 6%.

RESEARCH PROJECTS & PUBLICATIONS

Handling Uncertainty in Linguistics

Using Semantic Networks| Python (tkinter, mixer, pickle), Networkx, Textrazor [\[code\]](#)

January 2018 - May 2018

- Designed a learning agent to creates a Knowledge Base using a semantic network to handle ambiguity in various domains.
- The project was awarded as the best final year project in the CSE department.

Using Probability Theory | Python (nltk, pandas), PyMySQL, Apache [\[code\]](#)

August 2016 - January 2017

- Project aims at portraying the capabilities of probabilistic approaches in handling uncertainty. A learning agent was designed with a knowledge base as SQL database to handle ambiguity while taking orders in a food mart.
- Research was [published](#) in an international journal and presented in the **International Symposium on Data Science and Big Data Analytics (ISDB)** at Sri Aurobindo Institute of Technology, Indore 2018.

Analysis and Prediction of Survival after Colorectal Chemotherapy

Using Machine Learning Models | R (plyr, caret, rpart), Matplotlib [\[code\]](#)

June 2017 - September 2017

- Developed a framework using various machine learning models for analysing medical data on colon cancer patients and predict the survival probability (recurrence/death) after chemotherapy.
- Research [published](#) in a Journal **International Conference on Advances in Computing, Communications and Informatics (ICACCI)**.

KEY SKILLS

- Languages** : Go, Python, Java, C++,HTML, CSS, R, SQL, MongoDB, PostgreSQL,
- Frameworks and Technologies** : Linux, Git, AWS (EC2, ELB, DynamoDB, Elastic Cache, S3, Step function) Jenkins, REST API, gRPC, Kafka, Dispatcher, Terraform, Docker, Fast API
- Tools** : Ab Initio, Autosys, Datadog, Kibana, Consul, Phabricator, Postman, Vault