Kunal Desai

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EDUCATION

Master of Science in Computer Science   **June 2025**
Arizona State University   **Mumbai,India**
- Coursework: Foundation of Algorithms, Software Security, Digital Video Processing

Bachelor of Engineering in Computer Science   **October 2020**
Thadomal Shahani Engineering College   **Mumbai,India**
- Coursework: Data Structures & Algorithms, Operating Systems, Computer Architecture and Organization,Computer Networks,Web Development,Machine Learning,Object Oriented Progaming,Mobile Computing
- GPA: 8.49/10

EXPERIENCE

Software Development Engineer   **September 2020 - July 2023**
Deutsche Bank AG   **Pune, India**
- Developed and maintained an Invoice Presentment project web (Spring, Java,Hibernate, React) & app (Flutter) and effectively onboarded customers on it.
- Collaborated with diverse fintech partners , leveraging APIs to offer a wide range of financial solutions such as Payment Gateway and online NACH processing.
- Developed multiple microservices using the Spring framework, utilizing GRPC for efficient internal communication and RESTful APIs for external interactions.
- Enhanced multiple services to achieve a nearly 50% reduction in processing time.
- Managed GCP infrastructure (CloudSQL, Cloud Run, Cloud Functions, GCS) and achieved a 65% cost reduction.
- Enhanced security by 80% through the implementation of Sentinel policies, firewall rules, and Cloud Armor measures.
- Collaborated with and provided training to two interns as part of the Deutsche Bank buddy program.
- Operated within an agile work environment,actively engaging in daily meetings, achieving frequent releases within a single sprint, and utilizing JIRA for issue tracking

Software Developer Intern   **May 2019 - December 2019**
GreekSoft Technologies   **Mumbai, India**
- Automated ETL processes across millions of rows of data for thousands of stocks using dataflow, reducing manual work by 20%.
- Designed several robust RESTful APIs for data analysis tasks, utilizing ReactJS, NodeJS, and Flask.
- Manipulated large unstructured external and internal datasets, converting it into a query able format, resulting in a 10% workload reduction for the machine learning team (Python, SQL).
- Implemented time series forecasting, clustering techniques, and sentiment analysis of news and tweets for various stocks using Google Datalab.
- Automated CI/CD pipelines using Google Cloud Build and decreased development time by 75%.

PROJECT EXPERIENCE

Sign Language Recognition and vice versa, BE Project: **July 2019 - July 2020**
Thadomal Shahani Engineering College   **Mumbai,India**
- Created a database of 100 ISL videos and trained a gesture recognition model leveraging Google Mediapipe with a 65% accuracy rate.

- Integrated NLP techniques and used Sigml, HamNoSys Notation, and JASigning SiGML Service Client for real-time English to ISL translation with dynamic avatars, promoting accessibility and inclusive communication.

Jute Supply Chain Management   **July 2020 - August 2020**
Jute Corporation of India, SIH 2020
- Generated a machine learning model using CNN and tensorflow to detect defects in jute textiles and grains and designed an imaging system for efficient jute grain capture.
- Created a supply chain management system deploying Hyperledger Fabric and IBM Red Node (IoT Simulator) improving transparency and efficiency b of jute product tracking and management throughout the supply chain by 80%

CSV Validator and Generator   **March 2023 - March 2023**
https://github.com/kunalmanishdesai/csv-validator
- Built an open-source Java library with Java annotations to enable structural validations for Data Transfer Objects (DTOs), allowing users to define and enforce specific validation rules.
- Implemented CSV generation functionality, enabling users to easily generate CSV files from a list of DTOs, simplifying data export and manipulation tasks.
- Link: https://github.com/kunalmanishdesai/csv-validator

TricBuzz   **September 2023 - Present**
- Building a cricket match monitoring project employing technologies such as Flutter, Spring , and MongoDB.
- The project aims to monitor cricket match scores, player details, and commentary, specifically tailored for gully cricket competitions in India.
- Focusing on adhering to coding best practices, including clean and simple coding techniques, and parallel development to ensure efficient progress , scalability and maintainability.
- Link: https://github.com/kunalmanishdesai/tricBuzz,https://github.com/ravinamita/tricBuzz-backend
- https://github.com/ravinamita/tricBuzz-backend

SKILLS
- Languages: C, Java, Python, HTML, CSS, JavaScript, HCL, Dart, Go, SQL,Bash,JSON,C#,TypeScript
- Technologies/ Frameworks: Git,Github,Spring, Maven, ReactJS, REST APIs, JUnit, Terraform, GCP, Spring Framework,React (UI,Front end), Draw.io, Cloud Dataflow, Flutter, Microservices, JPA, Hibernate, JIRA, Confluence, Shell,GRPC,Unity (game development).
- Other Skills: Slack, Team, Confluence,DevOps
- • Soft Skills: Enthusiastic, Teamwork, Problem solving, Work ethic, Time management, Communication skills,Project Management

AWARDS & HONORS
- Received the Leadership Award in recognition of my role as a Senior Committee Member of TSEC Codecell.
- Secured the First Prize in the Smart India Hackathon 2020.
- Completed Bandit challenge at https://overthewire.org/wargames/
- Attained certification as a Google Associate Cloud Engineer.
- Successfully completed the DB Cloud Engineers program with distinction.
- Served as a Judge for a Hackathon event organized by CSI - TSEC.