

# Preetham Sana

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## EDUCATION

### Master's in Computer Science

Arizona State University, Tempe, Arizona

DEC 2023

GPA: 4/4

### Bachelor of Technology in Computer Science and Engineering

GITAM University, Visakhapatnam, Andhra Pradesh

APR 2020

GPA: 3.8/4

## PROFESSIONAL EXPERIENCE

### Software Engineer

OCT 2020 – DEC 2021

Tata Consultancy Services

Hyderabad, TS

- Automated the management of cloud infrastructure in AWS and Azure by using Terraform, decreased the creation time by 30% and increased the reliability of cloud infrastructure.
- Developed and automated the creation and management of EKS cluster in AWS with Terraform for application deployments.
- Managed AMI/Snapshots/Volumes, along with VPC, Subnets, CPU, Memory, and EBS upgrades and downgrades. Connections between various zones were also built.
- Performed static code analysis with Sonarqube to generate detailed report of bugs, code smells, vulnerabilities, code duplications and provided a clean code.
- Integrated Sonarqube with Gitlab CI/CD pipeline for dynamic analysis of code quality.

### Software Engineer Intern

MAY 2019 – JUN 2019

Grepthor Software Solutions Pvt Ltd

Hyderabad, TS

- Developed an application based on sentimental analysis to define the polarity of the public opinions and designed review processing system to classify the reviews as good or bad.
- Designed webpages for the users with **Django** framework to provide their reviews, and see how they are classified.
- Used **NLTK** and **Scikit-learn** library to pre-process the data and train the model and **Naïve Bayes** algorithm is used to find the probability to classify the data.
- Provided users an interface to contribute their reviews and they will be processed as a good review or bad review based on the keywords.

## PROJECTS

### Geospatial Data Processing Engine | Python, Apache Spark, Hadoop, Scala, Mongo DB JAN 2022 – APR 2022

- Analyzed NYC Taxi Trip spatio-temporal data and applied spatial statistics in order to identify statistically significant spatial hot spots areas using Apache spark.
- Implemented a model to find the business activities based on the locations and cities using spatial and textual searching on MongoDB using the PyMongo interface.

### Epidermis Detection System | PyCharm, Python

JUN 2021 – AUG 2021

- Built an two-dimensional map of a problem space with Self Organizing Map(SOM) algorithm and trained the model to learn about the skin and non-skin colored pixels.
- Detected the skin in an image or video by using NumPy, argparse, cv2, and imutils modules and differentiated the skin from other arbitrary objects in the image.

### Gesture Control using OpenCV | PyCharm, OpenCV, Python

JAN 2020 – APR 2020

- Collabrated as a team of 4 people to enhance the user experience when interacting with a PC, build and create a system that can recognize hand motions using **TensorFlow** and **Haar cascade**.
- Improved the feature selection using the Boosting and **AdaBoost** algorithms

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Java, Python, SQL, HTML 5, CSS 3, JavaScript, XML

**Frameworks:** React.js, Node.js, Django

**Tools, Databases:** Git, GitLab, Docker, VS Code, MySql, Mongo DB

**Operating Systems:** Windows, Linux/Unix, macOS

**Cloud Resources:** AWS EC2, S3, Microsoft Azure

**Courses:** Data Structures and Algorithms, Mobile Computing, Optimization Techniques, Agile Methodologies, Distributed Systems, Data Processing at Scale, Cloud Computing