(602) 566-4250
ashah116@asu.edu

Aesha Shah

github.com/aesha15
linkedin.com/aesha15
Tempe, Arizona

Education

Master of Science in Computer Science — **Graduating May 2023**
Arizona State University, Tempe, AZ — *GPA 4.22/4*
Relevant Coursework: Data Mining, Data Science for System Decision Analytics, Data Processing at Scale

Bachelor of Engineering in Computer Science and Engineering — **Aug 2017 - Jun 2021**
University of Mumbai, Thakur College of Engineering and Technology (TCET), Mumbai, INDIA — *CGPA 9.31/10*

Skills

Languages : Python, SQL, SAS, HTML/CSS, R
Frameworks : BigQuery, Django, Git, AWS, Google Cloud Platform, Google Marketing Platform, PostgreSQL, PowerBI, JIRA, Tableau, PyTorch
Libraries : Pandas, NumPy, Scikit-learn, NLTK, OpenCV, Matplotlib, Keras
Technical Skills : Machine Learning, Data Science & Analytics, Data Structures & Algorithms, Database Management Systems

Professional Experience

Graduate Services Assistant Data Science Research Aide - *SCAI at Arizona State University* — **Aug 2022 – Current**
Responsibilities include -
- Analyzing **Arizona's Medicaid data** to enable data-driven informed decisions.
- Researching and curating a timeline that reflects changes made during the past **5 years** and the **impact of COVID-19** on **Opioid Use Disorder** policies.
- Providing **project management** support and assistance to ensure project progress and effective communication with key stakeholders for the **State Opioid Response (SOR)** project.

Machine Learning and Artificial Intelligence Specialist Assistant - *EdPlus at Arizona State University* — **Mar 2022 – Aug 2022**
- Developed Machine Learning **predictive models** to **track and predict** students' performances over the semester for various courses.
- Aggregated student data to perform **quantitative analysis** from various data sources and transformed them into **actionable insights**.
- Produced data to **promote student success** by providing target audience lists of students to receive **interventions** based on the **predictions**.
- Reduced fetch and load time by **65%** by successfully reproducing SQL queries for Google Data Studio dashboards in BigQuery.
- Leveraged **Google Analytics** and **BigQuery** to track and analyze **web behavior and activity** aimed at increasing prospective student enrollments for the ASUOnline website.

Machine Learning Intern - *iPing Data Labs, INDIA* — **Aug 2021 – Nov 2021**
- Developed a **deep learning** powered **Automated Invoice Data Extractor** for an Australian client using Python to detect and extract valuable information from digital energy invoices using **Computer Vision** and **NLP**, eliminating manual labor by **80%**.
- Trained an **Object Detection** model to localize **10+ relevant data points** in **25+ invoice formats** and achieved **95%+** F1-Score.
- Developed and trained various machine learning models for **spatial text detection, keyword extraction** and **company and table identification and classification** on energy bills and performed **statistical inferencing** on the results to match stakeholder expectations.
- Devised a parsing algorithm to **extract and structure data** from invoice PDFs using Tabula, OCR, and Regex to **engineer model data** for training.
- Interpreted **1,25,000+ images** from CCTV feeds to detect **7 object categories** during **day and night** for **Traffic Detection and Tracking**.

Team Lead and Python Developer Intern - *TinkTank, INDIA* — **May 2020 - Dec 2020**
- Led a **team of 4** interns and contributed heavily to brainstorming and executing an end-to-end workflow to build an analytics tool that enables recruiters and hiring managers to **analyze, track and visualize** team performance metrics/KPIs.
- Implemented a **Business Rule Engine** in Python that performed **Custom Data Validation** on **40+ attributes** to obtain clean data for **visualization using custom dashboards** for each user type.
- Designed and developed the **ETL pipeline** to **map data** from **complex datasets and multiple data sources** using PostgreSQL and Django.

Projects and Research

Analysis of Machine Learning Models for Road Traffic Accidents, *Academic Project* — **Feb 2022 – May 2022**
- Led and implemented an **end-to-end** Machine Learning project pipeline to **classify** Accident Severity from a **highly imbalanced dataset**.
- Scrutinized four **predictive models** and boosted the model accuracy up to **84%** by incorporating **hyper-parameter tuning**
- Evaluated the models using **Cross-Validation**, and performed **Feature Importance** to make informed conclusions.

Plant Disease Identification and Prediction, *Undergraduate Major Project* — **Jun 2020 – Apr 2021**
- Trained a CNN model with **89% accuracy** on images captured on-ground to classify Diseased and Healthy Crop Leaves.
- Established a User Interface to visualize the model performance and deployed it on Heroku.

ShapeNSoul (Mobile Application), *Personal Project* — **Dec 2020 – Jan 2021**
- Developed a Mobile Application using Flutter and Firestore for a Naturopathy Clinic to facilitate appointment scheduling, notification alerts, and personalized profile and diet charts for each patient.

National Stock Exchange (NSE) daily report downloader, *Personal Project* — **Oct 2020 – Nov 2020**
- Automated daily report downloads from the NSE website using Tkinter to minimize repetitive human interventions and increase efficiency by 70%.

Augmented Reality for Crime Scene Investigation, *Research Paper Presentation* — **Feb 2018**
- Researched, analyzed and presented the impact of various Augmented Reality technologies and potential challenges in their implementation.

Certifications

Google Data Analytics Professional Certificate, Google, Coursera | **Advanced Google Analytics,** Google Analytics | **Deep Learning Specialization,** deeplearning.ai, Coursera | **Python 3 Specialization,** University of Michigan, Coursera | **Introduction to Machine Learning,** IIT Madras, NPTEL

Extra/Co-Curricular Activities

- **Student Representative and Member,** Board of Studies - TCET — Jan 2019 - Dec 2020
- **Publication Head,** Computer Society of India (CSI-TCET) — Aug 2018 - May 2019
- **Social Volunteer,** Extension Work Team (EWT-TCET) — Aug 2018 - May 2019
- **Chief Organizer,** Zephyr - Annual Techfest — Aug 2019 - Sep 2019
- **Editor,** The Byte (College Magazine) — Aug 2017 - May 2018
- **Delegate,** TCET Model United Nations Conference — Sep 2017