

EDUCATION

Master of Science in Computer Science (Specialization in Artificial Intelligence)

Arizona State University, Tempe, AZ

Graduating Dec 2023

GPA 4/4

Relevant Coursework: Statistical Machine Learning, Introduction to Deep Learning, Data Mining, Data Science for System Decision Analytics

Bachelor of Engineering in Computer Science and Engineering

University of Mumbai, Thakur College of Engineering and Technology (TCET), Mumbai, INDIA

Aug 2017 - Jun 2021

CGPA 9.31/10

PROFESSIONAL EXPERIENCE

Data Engineer Intern - Amazon

May 2023 - Aug 2023

- Enabled **cost saving** on the ETL pipelines and Redshift Cluster usage by optimizing identification and enabling rectification of performance detrimental gaps and incorrect keys in sub-par jobs and queries.
- Leveraging insights from my dashboard will cut costs by at least **40%** and boost team efficiency by over **80%**.
- Proposed **innovative AI integration strategies** to stimulate growth and promote innovation within existing organizational projects.

Research Analyst - Luminosity Lab

Jan 2023 - Current

Rodel Project -

- Contributing towards creating an **innovative and interactive simulator** of Arizona that enables leaders and citizens to explore the implications of proposed policies ranging from education to infrastructure hence aiding in **informed decision-making**.
- Developed and optimized the user interface using ReactJS and Three.js to improve user experience and responsiveness by **28%**.
- Implemented a **KD-Tree Nearest Neighbor** model to accurately assign students to schools by considering factors like proximity and school capacity.

Data Science Research Assistant - Arizona State University

Aug 2022 - Dec 2022

- Analyzed **Arizona's Medicaid data**, policy changes and **impact of COVID-19 on Opioid Use Disorder** over the past **5 years**.
- Identified **patterns in treatment gaps** to evaluate program effectiveness and **remission rates** of currently enrolled patients.
- Managed project progress and stakeholder communication for the **State Opioid Response (SOR)** initiative.

Machine Learning and Artificial Intelligence Specialist - EdPlus

Mar 2022 - Aug 2022

- Developed **predictive models** to **forecast and identify at-risk students** leading to **12% increase** in success rates over a semester.
- Contributed to **student success** by providing targeted audience lists of students who require **interventions** based on the model predictions.
- Leveraged **Google Analytics** and **BigQuery** to track and analyze **web activity** aimed to increase prospective enrollments for ASUOnline.
- Reduced fetch and load time by **65%** by successfully reproducing **efficient SQL queries** for Google Data Studio dashboards in BigQuery.

Machine Learning Intern - iPing Data Labs

Aug 2021 - Nov 2021

- Developed a **Deep Learning** powered **Automated Energy Invoice Data Extractor** using **Computer Vision** and **NLP**, reducing manual labor by **80%**.
- Trained ML models to identify the **semantics** and localize **10+ relevant data points** in **25+ invoice formats**, achieving **95%+ F1-Score**.
- Devised a parsing algorithm to **extract and structure data** from invoices using Tabula and OCR 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 Software Development Intern - TinkTank

May 2020 - Dec 2020

- Led** and built an analytics tool that enables recruiters to **analyze, track and visualize** team performance metrics/KPIs.
- Implemented a **Business Rule Engine** for **custom data validation** on **40+ attributes**, ensuring clean data for **user-specific dashboard visualizations**.
- Designed and developed the **ETL pipeline** to **map data** from **complex datasets and multiple data sources** using PostgreSQL and Django.

PROJECTS AND RESEARCH

Visualization System for Interpretability of Adversarially-trained Deep Learning Models, Academic Research Project

Sep 2023 - Current

- Working on designing a visualization system for training **deep learning models** that resist **adversarial attacks** and remain **interpretable**.

Plant Disease Identification and Prediction, Undergraduate Major Project

Aug 2022 - Dec 2022

- Built a **CNN** model to classify healthy and diseased crop leaves of three different plant categories with an accuracy of **91%**.
- Combined **on-ground** and Kaggle-sourced images to create a dataset having more precise representation for model training.

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**.

ShapeNSoul (Mobile Application), Personal Project

Dec 2020 - Jan 2021

- Developed an app using Flutter for a Naturopathy Clinic to facilitate appointment scheduling, personalized profile and diet charts for patients.

CO-CURRICULARS

- Scholarship Reviewer**, Grace Hopper Celebration (GHC) 2023 AnitaB.org
- Travel Grant Reviewer**, Graduate and Professional Association (GPSA) - Arizona State University
- Volunteer (MC)** - Open Data Science Conference, San Francisco
- Social Volunteer**, Extension Work Team (EWT-TCET)

May 2023

Mar 2023 - Current

Nov 2022

Aug 2018 - May 2019

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

SKILLS

Languages : Python, SQL, HTML/CSS, JavaScript, C/C++, Java
Libraries : Pandas, NumPy, Scikit-learn, NLTK, OpenCV, Matplotlib, Keras D3.js, Three.js
Technical Skills : Machine Learning, Data Science & Analytics, Data Structures & Algorithms, Database Management Systems
Frameworks : BigQuery, Django, Git, AWS, GCP, Google Marketing Platform, PostgreSQL, PowerBI, JIRA, Tableau, PyTorch, Tensorflow, Firebase