Akash Khandelwal

Indian Institute of Technology, Goa

Third Year **Undergraduate**, **Computer Science and Engineering**
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Education

BTech, Computer Science and Engineering, Indian Institute of Technology Goa	CGPA : **7.38/10**	2021 – Present
Class 12, Maharashtra State Board, SPS, Pune, MH	Aggregate: **81.69** %	2018 – 2020
Class 10, Maharashtra State Board, GNHS, Gondia, MH	Aggregate: **94.40** %	2017 – 2018

Experience

Software Development Intern, OPOC, Goa - 403401 (May 2023 – Jul 2023)

- Web scraped career portals of over 20 companies' websites using **Selenium** and Python libraries like **beautifulsoup**
- Built login page UI of the company website using **React**
- Implemented Google Authentication Firebase using **Google Firebase Console**
- Hosted Company Website over the internet using **Google Cloud Console**

Projects

Mental Health Prediction with Vertex AI AutoML using Google Cloud Console [REPORT] (Apr 2023 – May 2023)

- Developed a **mental health classification model** using **Google Cloud's Vertex AI AutoML** that is trained on anonymized data taken from reddit depression and suicide-watch dataset of over **10000 texts**.
- The task was to create a Machine Learning model that could effectively categorize text content into 2 categories based on its context, built a **structured Bigquery Dataset** which was to be sourced from a CSV file for the model.
- Fine-tuned the model parameters to achieve optimal results, leveraging advanced machine learning techniques and cloud infrastructure to acquire **93.7 confidence score**.
- The model was able to accurately classify text content into 2 categories: **"depression"** and **"suicide watch"**, contributing to the early identification and support of individuals in need, showcasing potential of **deep learning** to make a positive impact on mental health support.

Image Data Classification with BigQuery ML using Google Cloud Console [REPORT] (May 2023 – Jun 2023)

- Built a classification model that leveraged **SQL** constructs in **BigQuery ML** to label more than 5 Yoga poses using a reconstructed ResNet Model.
- Within Bigquery ML, reconstructed the **ResNet Model**, used SQL constructs, and trained it to recognize and label 5 different Yoga poses.
- Established **BigQuery Dataset**, a Google Cloud Storage Bucket and a **BigLake connection** for external table, enabling it to retrieve **10000+ images**.
- This functional classification model demonstarted the capability to accurately label into 5 classes with **accuracy 90.3**, showcasing the potential of using SQL constructs in BigQuery ML for image classification tasks by **data analysis**.

Moving Average-Based Stock Trend Predictor [GITHUB] (Feb 2024 – Mar 2024)

- Implemented a **Sequential LSTM neural network** with 50 units which uses moving averages (100 days and 200 days moving average) to predict the trend of the stock market based on the historical data of the Stock ticker.
- Utilized Python libraries such as **NumPy, Pandas, and Keras** to implement the **machine learning model**. Created an interactive app using **Streamlit** to provide users with an intuitive interface for predicting stock trends.

Skills

Programming	C, C++, Python, Cloud Computing, Haskell, SQL, HTML, CSS, Javascript, OpenCV, Matplotlib, Numpy, React, Pandas, Seaborn, Scikit-learn, Tensorflow, Pytorch, Git, Latex, VHDL, Fortran, OOPS
Software	GCP, AutoCAD, SolidWorks, Figma, Linux, Github, Verilog HDL, Netlify, Firebase, MATLAB
Relevant Coursework	Data Structures and Algorithms(DSA), Machine Learning, Compiler Design, Digital Systems Design, Introduction to Electrical and Electronics Engineering, Algorithm Design, Computer Networks, Probability and Statistics, Linux and Git, Operating Systems, Computer Architecture, Artificial Intelligence, Logic in CS, Functional Programming
Soft Skills	Leadership, Communication, Teamwork, Creativity, Project Management, Adaptability

Positions of Responsibility

Google Developer Student Clubs Lead 2023-24	Supervising a peer-to-peer learning environment by delegating a team of **15+ core members** in IIT Goa GDSC Chapter.	(Jul 2023 – Present)
Google Cloud Campaign Facilitator 2023-24	Facilitated 4 sessions to **80+ students** from **IIT Goa and NIT Goa**	(Oct 2023 – Nov 2023)
Branch Representative (CSE Department)	Delegated **100+ academic issues** from 4 batches of CSE Department.	(Jul 2022 – Aug 2023)
Co-Lead (Cloud Computing Domain), Google DSC	Managed talks, 3 competitions and 2 live coding workshops.	(Aug 2022 – Jul 2023)
Alumni Cell Database Management Team Member	Collected and stored data from **50+ Alumni** of IIT Goa.	(Jul 2022 – Jul 2023)

Achievements

- Secured **AIR 5169** in JEE Advanced 2021 among **150K+ candidates**. (2021)
- Cleared **Flipkart** Grid 5.0 Level 1.1. (2023)
- **[Certificate] Winner** of Code Vipassana Season 2 undertaken by Abirami Sukumaran, Developer Advocate in Google. (2023)
- Qualified NTSE Stage 1. (2018)
- **[Certificate]** Secured **State Level 3rd Place** in All India Essay Writing by **United Nations Information Centre for India and Bhutan**. (2017)

Extracurriculars & Hobbies

- Engaged in building a strong Google DSC community of 200+ members by networking with like-minded peers. (2022-Present)