Khan Mohd Aasim Maqsood

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SKILLS

Languages: Python, C++, C, R, JavaScript, SQL, SQLite, HTML, CSS.
Libraries/ Frameworks: React.js, Django, FastAPI, REST APIs, Pandas, NumPy, Scikit-learn, Matplotlib, TensorFlow.
Developer Tools: Git, GitHub, Linux (Ubuntu), Postman, AWS, Jupyter, RStudio, Quarto, Figma, Jira.
Soft skills: Problem Solving, Adaptability, Team Collaboration, Communication.

PROFESSIONAL EXPERIENCE

Google Summer of Code 2025 - IOOS   *May 2025 - Present*
Open Source Contributor

Project: Enhancing the PhytoClass R Package & GUI for Phytoplankton Estimation.

Tech Stack: R, Shiny, Tidyverse, dplyr, ggplot2, Git, GitHub.

- Improved pipeline stability by fixing **10+ core bugs** and crash issues, increasing reliability of phytoplankton estimation workflows across diverse datasets
- Developed **5+ new features** through PRs, including **multi-user concurrency**, **advanced data handling**, and **regional configuration support**
- Enhanced GUI usability by redesigning layout, adding tooltips, and integrating multiple new features in the **RShiny interface**, boosting user efficiency
- Strengthened codebase with modular refactoring and **dynamic validation**, and authored clear **documentation** to support adoption by **global marine researchers**

ACADEMIC PROJECTS

HealthWave   *July 2024 - Dec 2024*
AI - Powered Healthcare Web App

Tech Stack: Django, React, Python, TensorFlow, Scikit-learn, Streamlit, REST APIs, NumPy, Pandas.

- Achieved **97%+ prediction accuracy** on disease models by training and fine-tuning ML pipelines (heart disease, diabetes, Parkinson's) using medical datasets.
- Enabled **real-time access to 1,000+ medications** by integrating public APIs for dosage, side effects, and prescription info.
- Increased user retention by **auto-populating 10+ health blogs** using custom scraping and content ingestion pipelines.
- Reduced model latency to **<1 second** by deploying interactive ML predictions via Streamlit and RESTful endpoints.

ModelHQ   *Jan 2025 - Apr 2025*
Full-Stack ML Prediction Platform

Tech Stack: React, FastAPI, Python, TensorFlow, Scikit-learn, Pandas, NumPy, Keras, XGBoost, OpenCV, Streamlit.

- Achieved **~95% accuracy** by implementing ML models for **breast cancer detection**, **housing price prediction**, and **bank churn classification.**
- Improved model usability by developing a real-time prediction UI with visualizations using React and FastAPI.
- Increased accessibility for non-technical users by adding **guided workflows** and **interactive model tutorials.**

EDUCATION

Anjuman-i-islam Kalsekar Technical Campus   *July 2022 - July 2026*
B.E in Computer Engineering (Honors: CyberSecurity)   *CGPA: 8.0 / 10*

- **Relevant Coursework:** Computer Networks, Compiler Design, DSA, Distributed Systems, DBMS, Cloud Computing, Mathematics.