

SHEHZAAD KHAN

Bengaluru, India

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EDUCATION

PES University, Bengaluru

2023 – Present

B.Tech in Computer Science and Engineering

CGPA: **8.26** (up to 5th semester)

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, Generative AI, Cloud Computing

St. Francis PU Composite College

2023

Karnataka Pre-University Board

Percentage: **95.16%**

St. Mira's High School, Bengaluru

2021

Indian Certificate of Secondary Education (ICSE)

Percentage: **95.6%**

SKILLS

Programming Languages: Python, C, C++, Java, JavaScript

Core CS / Systems: Data Structures and Algorithms, Operating Systems, Computer Networks, Concurrency, Memory Management

Frameworks and Libraries: React, Flask, FastAPI, NumPy, Pandas, Scikit-learn, PyTorch, Transformers

Machine Learning & Deep Learning: Supervised and Unsupervised Learning, Neural Networks, Deep Reinforcement Learning, Transformers, Feature Engineering, Model Evaluation

Databases and Backend Services: MySQL, PostgreSQL, MongoDB, SQLite, Redis, Firebase, Supabase

Big Data and Distributed Systems: Apache Kafka, Apache Spark, Hadoop

Tools and Platforms: Git, GitHub, Docker, REST APIs, JWT Authentication, Linux, Windows

PROJECTS

Intelligent Hangman AI Agent

Machine Learning / Deep Learning

Python, PyTorch, Hidden Markov Models, Deep Q-Networks

- Built a hybrid AI agent combining Hidden Markov Models, Deep Q-Networks, and word filtering, achieving a **94.40% win rate** on 2,000 test games.
- Engineered an intelligent fallback strategy prioritizing word filtering (50%), HMM predictions (30%), and RL Q-values (20%) based on candidate set size.

Airbnb Rental Price Prediction

Machine Learning / Data Analytics

Python, Scikit-learn, Pandas

- Developed regression models to predict Airbnb rental prices using property, host, and review features with systematic feature engineering.

Data Analytics Problem Solving

Data Analytics

Python, Pandas, NumPy

- Performed regression, correlation, and time-series analysis with statistical validation and visualization.

Real-Time Server Monitoring Pipeline

Big Data / Distributed Systems

Apache Kafka, Apache Spark, Python

- Engineered a distributed monitoring pipeline using Kafka producers/consumers and Spark windowed aggregations with automated alert detection.

Mini HDFS Simulation

Distributed Systems

Python, TCP Sockets, Multi-threading

- Implemented a miniature HDFS with Namenode–Datanode architecture, file chunking, replication, and fault tolerance.

Throne of Art – Online Marketplace for Handcrafted Goods

Software Engineering

Flask, PostgreSQL, Supabase

- Built a full-stack marketplace with role-based access control, secure authentication, and order processing.

Additional Projects:

LikeLoop — Instagram Clone: MongoDB, Express.js, React, Node.js, Cloudinary

Crowdfunding Platform: Python, Flask, MySQL, JavaScript

Custom DHCP Protocol: Python, Raw Ethernet Sockets, SSL/TLS

EXPERIENCE

Freelance Full-Stack Developer — AutoML Platform

Nov 2024

- Designed and delivered a production-ready authentication system using React, FastAPI, Firebase, and MongoDB.
- Implemented secure login, password reset, and user verification flows with JWT-based session handling.
- Integrated backend services with persistent user data storage and delivered features within a one-week client timeline.

CURRENT WORK / CAPSTONE PROJECT

E.C.H.O — Efficient Contextualized History Orchestrator

- Developing an AI-powered Chrome extension to unify Gmail, Chrome history, and YouTube activity.
- Designing a privacy-first architecture using local storage, vector databases, and RAG-based retrieval.
- Implementing natural-language search, contextual summaries, and digital wellbeing analytics.