

Syeda Anoosha Iqtidar

+92-331-8227752 | anushazaidi06@gmail.com | [LinkedIn](#) | [GitHub](#)

SUMMARY

Software Engineering graduate with internship experience across software engineering, backend development, data science, and AI. Experienced in building full-stack applications and backend services using Python, FastAPI, React, PostgreSQL, and related technologies. Hands-on experience developing machine learning pipelines, LLM-based applications, REST APIs, data ingestion systems, authentication, and AI-assisted enterprise risk management products. Built and deployed projects spanning risk analytics, OSINT, machine learning, conversational AI, mobile applications, and web platforms.

TECHNICAL SKILLS

- **Programming:** Python, JavaScript, HTML, CSS
- **Backend & APIs:** FastAPI, Django, Flask, Node.js, Express, REST APIs, Pydantic, SQLAlchemy
- **Frontend & Mobile:** React, React Native, Tailwind CSS, Flutter, Redux Toolkit, Zustand
- **Databases:** PostgreSQL, MySQL, Supabase, Firebase, Neon, Firestore
- **Machine Learning & AI:** PyTorch, TensorFlow/Keras, scikit-learn, XGBoost, LightGBM, LangChain, Large Language Models (LLMs), LLM integration, prompt engineering, model training and evaluation, fine-tuning, data preprocessing, time-series forecasting
- **AI & Data Tools:** Hugging Face, Pinecone, Hopsworks Feature Store, SHAP, Plotly, Matplotlib, Seaborn
- **Authentication & Security:** JWT, JWT refresh tokens, role-based access control (RBAC), authentication, and authorization
- **Testing & Development:** Pytest, unit testing, GitHub Actions, CI/CD
- **Other Technologies:** Web scraping, document parsing, data pipelines, data visualization

WORK EXPERIENCE

Effective Risk Management, Remote (Australia) - Software Engineering Intern

Jun 26 - Present

- Built four full-stack modules for an enterprise risk management platform using Python, FastAPI, PostgreSQL/Supabase, React 19, Vite, and Tailwind CSS.
- Developed two deterministic risk-scoring engines and AI-assisted features using Gemini, Groq, and OpenRouter, with rule-based scoring and controlled LLM usage.
- Built a resumable SEC EDGAR pipeline processing 649 10-K filings, 16,250 risk factors, and 55,637 classifications across an ISO 31000-aligned taxonomy.
- Implemented JWT/RBAC authentication, audit logging, and backend tests, and built an internal Kanban platform with PostgreSQL-backed project management and activity tracking.

10Pearls Pakistan, Remote (Pakistan) - Data Science Intern

Dec 25 - Feb 26

- Created an end-to-end machine learning pipeline for 72-hour Air Quality Index (AQI) forecasting using weather and pollutant data from external APIs.
- Built automated feature pipelines, trained machine learning models, and deployed real-time predictions through a Streamlit dashboard.
- Automated scheduled workflows using GitHub Actions.

Buildables, Remote (Pakistan) - Artificial Intelligence Fellow

Aug 25 - Nov 25

- Built AI chatbots and agents using Python, Groq API, and Streamlit as part of an applied AI fellowship.
- Developed a chatbot and gained hands-on experience with Large Language Models (LLMs), text-to-speech (TTS), speech-to-text (STT), and prompt engineering.

TIERS Limited, Remote (Pakistan) - Django Intern

Jun 25 - Aug 25

- Developed full-stack web applications using Django, Django REST Framework, HTML, CSS, and React.
- Implemented Django models, views, templates, custom user authentication, DRF serializers, viewsets, and API integration with React frontends.

BitsPro, Onsite (Hyderabad) - Backend Developer Intern

Jan 24 - Apr 24

- Developed backend functionality using Go for web applications.
- Built RESTful APIs to support data exchange between applications.
- Used GORM for database interaction and object-relational mapping.
- Implemented unit and integration tests to verify application functionality and code quality.

PROJECTS

OSINT Third-Party Risk Management - *Effective Risk Management*

Jul 26 - Aug 26

- Built a vendor risk platform using lawfully public OSINT to produce evidence-linked risk records from a vendor name or domain.
- Implemented 18+ data collectors covering and insolvency registers across Australia, the UK, EU, US, and Canada.
- Streamed collection results to the UI using Server-Sent Events (SSE) and maintained risk and confidence as separate scoring dimensions.
- Implemented a sigmoid penalty scoring model, human adjudication for gated sanctions matches, and an append-only, hash-stamped PostgreSQL evidence store.
- Added peer benchmarking across 1,500 possible cohorts using industry, revenue, headcount, and region, with a widening-ladder fallback and refusal below eight peers.
- Added an optional read-only LLM evidence summarizer that cannot modify risk scores
- **Technologies:** Python, FastAPI, PostgreSQL/Neon, Server-Sent Events, YAML, dnspython, httpx, Pytest, Ruff, React 19, Vite, Tailwind CSS v4
- **Skills:** OSINT collection and source assessment, risk scoring model design, confidence modeling, entity resolution, evidence integrity, hash-chained audit storage, peer cohort benchmarking, streaming APIs, regulatory/legal compliance design, rate limiting

Emerging Risk Model - *Effective Risk Management*

Jul 26

- Built an emerging-risk outlook engine that accepts an organisation profile covering industry, size, and geography and returns board-ready risks.
- Scored risks using velocity, impact, and confidence with cell-level provenance and a deterministic additive engine containing 144 curated modifier cells.
- Enforced an architecture where LLMs classify passages against a closed nine-mechanism vocabulary and verify verbatim quotes, while deterministic rules produce every numerical score.
- Automated ingestion from multiple sources, with source-level permissions, a Four-Gate admission test, and an audited LLM-as-a-judge second opinion.
- **Technologies:** Python, FastAPI, SQLAlchemy, Alembic, PostgreSQL/Supabase, HS256 JWT, APScheduler, httpx, Playwright, pdfplumber, pypdf, BeautifulSoup, Protego, Google Gemini, Groq, OpenRouter, Tavily, Pytest, React 19, Vite, Tailwind CSS v4, shadcn/ui
- **Skills:** Deterministic scoring model design, LLM boundary enforcement, data provenance and auditability, web scraping, document parsing, scheduled ingestion workers, authentication, automated testing, technical methodology documentation

Internal Kanban Board - *Effective Risk Management*

Jun 26 - Jul 26

- Built a multi-project internal task management platform for delivery teams with drag-and-drop boards, project membership, invitation flows, personal cross-project boards, notifications, and append-only card audit trails.
- Designed a seven-table PostgreSQL schema with cascade/set-null referential integrity, soft deletes, and composite indexes for unread-notification and per-column card queries.
- **Technologies:** Python, FastAPI, Supabase PostgreSQL/Auth, Pydantic, JWT refresh-token flow, React 19, Vite, Tailwind CSS v4, dnd-kit, Radix UI/shadcn-ui, React Hook Form, Zod, date-fns, Sonner
- **Skills:** Relational schema design, database indexing, event sourcing/audit logging, permission modeling, drag-and-drop UX, component library architecture, form validation, notification systems

Risk Completeness Module - *Effective Risk Management*

Jun 26

- Built a risk-disclosure benchmarking platform comparing an organisation's declared risk themes against peers from US SEC 10-K Item 1A filings.
- Developed a three-step assessment wizard and deterministic Coverage Engine calculating coverage percentage against peer averages with snapshot-locked results.
- Added thin-cell statistical warnings for peer groups with fewer than five companies and board-ready PDF and Excel exports.
- Framed results as peer disclosure patterns rather than compliance verdicts.
- **Technologies:** Python, FastAPI, Supabase/PostgreSQL, Pydantic, JWT, fpdf2, openpyxl, React 19, Vite, Tailwind CSS v4, TanStack Query, Recharts, Framer Motion, Axios
- **Skills:** Benchmarking engine design, requirements engineering (EARS), role-based access control, REST API development, PDF/Excel report generation, data visualization, accessible UI design, Australian-English technical writing

Pearls AQI Predictor - 10Pearls

Jan 26 - Feb 26

- Built an end-to-end AQI forecasting system predicting air quality in Hyderabad for the next 72 hours, with health alerts, historical analysis, and model explainability.
- Trained a LightGBM model on more than two years of weather and pollution data, achieving R^2 of 0.98 and RMSE of 3.24.
- Implemented feature engineering, model training and evaluation, REST API development, data pipelines, CI/CD automation, data visualization, and model explainability.
- **Technologies:** Python, FastAPI, Streamlit, scikit-learn, XGBoost, LightGBM, TensorFlow/Keras, Hopsworks Feature Store, GitHub Actions, Plotly, SHAP, Open-Meteo API, Render, Streamlit Cloud
- **Skills:** Time Series Forecasting, Feature Engineering, Model Training and Evaluation, Model Explainability, REST API Development, Data Pipelines, CI/CD Automation, Data Visualization.

FocusAid - Final Year Project

Nov 24 - Nov 25

- Built a personalized ADHD task management application with AI-powered subtask generation, mood-based prioritization, Pomodoro timers, and adaptive reminders.
- Developed the full-stack application using React Native, FastAPI, PostgreSQL, and machine learning models.
- **Technologies:** React Native (Expo), FastAPI, PostgreSQL, PyTorch, LLaMA, T5, Gemma, Phi-2, Redux Toolkit, JWT, ngrok/Colab
- **Skills:** Full-stack development, language model fine-tuning, REST API design, data preprocessing

PromptTune - Buildables

Nov 25

- Built a prompt testing tool with persona-based chat testing, checklists, Retrieval-Augmented Generation (RAG), and result comparison.
- Developed the application with separate frontend and backend components and vector search.
- **Technologies:** Python, FastAPI, Pydantic, Uvicorn, React, Vite, LangChain, Groq API, Pinecone Vector Database
- **Skills:** API development, vector search, LLM integration, frontend development, persona-based prompt testing

Affordable Meals - University & GNEC Hackathon Project

Sep 25 - Oct 25

- Developed a meal planning platform providing low-cost and nutritious meal plans, recipe suggestions, budgeting support, and user accounts.
- Implemented REST APIs, authentication, database migrations, frontend functionality, and backend services.
- **Technologies:** React, TypeScript, Zustand, Tailwind, Express, Node.js, PostgreSQL, Drizzle ORM, JWT Authentication, Render, Vercel
- **Skills:** REST API development, authentication, database migrations, frontend optimization, backend implementation.

Conversational AI Bot - Buildables

Sep 25 - Oct 25

- Created a voice-based assistant that accepts speech input, transcribes it, generates LLM responses, and returns audio replies in real time.
- Built the backend and Streamlit interface for speech processing and LLM integration.
- **Technologies:** FastAPI, Python, SpeechRecognition, gTTS, Groq API, Streamlit
- **Skills:** Audio-to-text pipelines, LLM chat integration, Streamlit UI, backend audio handling

Micro Coach - Buildables

Sep 25

- Built a lightweight chatbot providing short, practical decision-support responses through a web interface.
- Integrated backend APIs, frontend components, and LLM-based responses.
- **Technologies:** Python, Flask, React, Node.js, Groq API
- **Skills:** Backend integration, API design, frontend development, LLM prompt engineering

PCOS Predictor - Personal Project

Jun 25

- Built a machine learning web application for early PCOS screening using clinical and lifestyle indicators.
- **Technologies:** React (Vite), FastAPI (Python), Random Forest, scikit-learn
- **Skills:** Machine learning, FastAPI, React

Cook Smart - University Project

Oct 24

- Built a cross-platform recipe application with search, save, and user authentication functionality.
- **Technologies:** Flutter, Firebase Authentication, Firestore, Firebase Storage
- **Skills:** Mobile application development, Firebase, Flutter

EDUCATION

Mehran University of Engineering and Technology, Jamshoro	2021 - 2025
B.E. in Software Engineering	
CGPA: 3.81 - Graduated Third Position in the batch	
College of Excellence, Hyderabad	2019 - 2021
Pre-Engineering in Intermediate and Secondary Education	
Grade: A1	

CERTIFICATIONS

• Advanced Learning Algorithms - DeepLearning.AI	Jul 2024
• Supervised Machine Learning: Regression and Classification - DeepLearning.AI	Jul 2024
• National Freelance Training Program (Technical Domain) - NFTP	Aug 2023
• Intermediate Python - DataCamp	Jun 2023
• Introduction to Data Science - Cisco	Jun 2023
• Google Data Analytics Foundations - Google	May 2023

EXTRACURRICULAR ACTIVITIES

- Designed event branding, posters, and social media graphics.
- Worked with GDSC, Kubernetes Community Days Lahore, and Mehfooz Mustaqbil Foundation on design and outreach.