Ayaan A. Syed

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PROFESSIONAL SUMMARY

Results-driven technology consultant with expertise in software development, AI, and data science. Skilled in collaborating with stakeholders to develop customized solutions, leveraging programming expertise in Python, Java, and AWS services. Experienced in AI-driven applications, cloud computing, and full-stack development, with a strong ability to translate client needs into technical solutions. I speak and write in English and Urdu, and I am experienced in Hindi

WORK EXPERIENCE

USDA - Data Scientist   **June 2024 - August 2024**
Internship   *Austin, TX*
- My role comprised two main projects. I developed a data science solution using Google Earth Engine to monitor water quality in Fiji, applying different indices for detecting pollution and analyzing seasonal trends. The other involved Land Use Land Cover (LULC) for Fiji. My job was to photo-interpret sample plots of land, write R scripts for the interpretations' accuracy, and compile my data for the 2021-2022 reporting period.

Klein Sports Performance, LLC - AI Research Lead   **September 2024 - Current**
Internship   *Austin, TX*
- Lead researcher for the AI component of a fitness app, responsible for developing machine learning algorithms to learn 100+ workouts, personalize workouts, and analyze user performance. Collaborated with data science/development teams to feed our ChatBot information across 20+ studies, optimizing feedback and enhancing user fitness outcomes through tailored insights.

PROJECTS

- **Fiji Water Discoloration Monitoring** - Cloud-Based Computing Script
    - The data science project leverages Sentinel-2 satellite imagery and Google Earth Engine to monitor water discoloration in Fiji. It uses indices to assess environmental conditions and identify potential pollution sources.
    - **Skills used:** Python, Javascript, Google Earth Engine, Google Earth, ArcGIS Pro
- **Esports Manager AI Assistant** - LLM-Powered Digital Assistant
    - Developed an LLM-powered digital assistant with a chat interface to make an esports team and answer queries about the players. The system processed 133 GB of data for a Retrieval-Augmented Generation workflow. Used AWS services (Bedrock, S3, Lambda, AOSS) to clean, store, and manage data, creating a vector store and index. Used LLM's the assistant's knowledge base and for embedding.
    - **Skills used:** AWS Services, Python, PyCharm, LangChain, StreamLit, Anthropic's Claude *v2*, Amazon Titan
- **SentinelAI** - AI-Powered Network Intrusion Detection System
    - Developed a cutting-edge network intrusion detection system leveraging ensemble machine learning approaches (Isolation Forest, One-Class SVM, DBSCAN) to identify malicious network activities in real-time. Implemented explainable AI features to provide security analysts with actionable insights into detection decisions.
    - **Skills used:** Python, Pandas, NumPy, Scikit-learn, Streamlit, Matplotlib, Altair

EDUCATION

St. Edwards University   **August 2022 - Current**
BA, Computer Information Science   *Austin, TX*
- Relevant Coursework: Concepts I & II, Algorithmic Problem Solving, Computation-Based Programming, Web Development., Computer Architecture, Data Structures, Intro to AI, and Database Theory, Software Engineering
- Honors & Awards: President's Achievement Scholarship

COMMUNITY INVOLVEMENT & INTEREST

- **Animal Caretaker -** Volunteer   **December 2022 - Current**
    - Provide care for animals by ensuring their well-being through feeding, grooming, and maintaining clean and safe living environments. Assisted with socialization and enrichment activities to support their physical and emotional health.