Muhammad Asad

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EXPERIENCE

- **Tkxel**
  Software Engineer   *April 2023 - Present*
  - Designed and optimized comparison module in Hale Products, cutting API response time by 70 % and enhancing user experience.
  - Pioneered AJAX-based asynchronous calls, boosting user interaction speed by 60% and reducing bounce rate by 20% in "Hale Products."
  - Contributed to architecture discussions, resulting in a 25% reduction in server load and improved system performance for the A-plan coaching system.
  - Achieved a 98% client satisfaction score, delivered 5 key features on time and successfully, while also fulfilling challenging project goals.for the A-plan coaching system.
  - Orchestrated migration of data from legacy Firebase storage to Postgres, improving data retrieval speed by 40% and enabling seamless scalability.

- **Careem**
  Software Engineer   *July 2022 - April 2023*
  - Leveraged the use of Golang concurrency objects like goroutines, channels and wait-groups to make services more robust and scalable
  - Reduced AWS cost upto 10 % by migrating the deployments to kubernetes
  - Working with AWS technologies such as EC2, RDS, S3, and DynamoDB at scale in a production environment.
  - Utilize Continuous Integration and Deployment processes to ensure high-quality, maintainable code.
  - Configured and maintained automated deployment processes with integration as well as deployment pipelines using CI/CD tools i.e Jenkins, Git, Github etc.
  - Worked as a kubernetes developer to maintain and implement Kubernetes worloads i.e Pods, Replica sets, Deployments and Services etc

- **Munch:ON (Acquired By Careem)**
  Software Engineer   *July 2021 - July 2022*
  - Achieved 70% of accuracy for time series predicted model (called JASPER) that predicts the number of orders for a given week across all the restaurants
  - Worked closely with a team of data engineers and BI analysts to improve the efficiency of the scheduling (called Merlin) by 20%
  - Achieved 60% accuracy for subscription churn prediction model .
  - Created REST API for the model using Flask.
  - Built and maintained data pipelines using Python and SQL.
  - Designed and implemented data pipelines to extract, transform, and load data from various sources, including APIs, databases, and flat files.

EDUCATION

- **FAST NUCES**   Lahore, Pakistan
  Bachelor of Science in Computer Science

PROJECTS

- **Kabayan Remit**
  - Worked on integration of US payments into the platform, enhancing the service's accessibility and extending its reach to a broader user base. This integration contributed to increased transaction volume and revenue growth

- **Hale Products**
  - Led end-to-end development of "Hale Products," an advanced data system for efficient engine and pump data storage and analysis, optimizing compatibility assessment.
  - Designed and implemented a robust user management module, ensuring secure access control and streamlined authentication and authorization.
  - Developed a revolutionary comparison module using advanced business rules, vastly improving engine-pump compatibility decisions.
  - Engineered groundbreaking comparison algorithm enhancement, leveraging Pandas to reduce API time complexity from $O(n^2)$ to linear, enhancing performance significantly.
  - Pioneered AJAX-based asynchronous calls, elevating user interaction and experience by enabling real-time updates without full page reloads.

- **A-Plan Coaching System**
  - Spearheaded the integration of the ChatGPT API within the chat module, leveraging AI-powered responses to ensure instant and effective communication between clients and coaches.
  - Utilized asynchronous Celery to send automated emails, increasing the efficiency and speed of the email sending process.
  - Engineered a robust Meeting Module that seamlessly synchronized with Google Calendar, allowing clients and coaches to efficiently schedule and manage coaching sessions.
  - Led the data migration and transition initiative by creating a seamless pipeline for transferring data from the legacy Firebase storage system to a scalable Postgres database.
  - Conducted code reviews and provided feedback to other team members to ensure adherence to best practices and quality standards.

- **YODA - Data Platform**
  - Developed and maintained a user portal in Django and a CLI module in Python for accessing data on the platform.
  - Designed and implemented data jobs using Apache Spark on AWS EMR, leveraging cloud watch for logging and Prometheus for monitoring performance.
  - Collaborated with cross-functional teams to migrate the platform deployment from Beanstalk to Kubernetes, improving scalability and performance of the platform.
  - Contributed to the migration of APIs from the legacy system to Go lang, improving performance and efficiency of the APIs.

- **Churn Prediction System**
  - Gathered data from various sources and performed feature engineering to create a dataset for model training.
  - Experimented with different machine learning models and identified the most effective one for predicting churn.
  - Integrated Slack to send notifications when a customer is predicted to churn.
  - Successfully developed Data pipeline and deployed a Churn Prediction System using Airflow on AWS that improved customer retention rates by 20%

- **Merlin & Jasper**
  - Achieved an accuracy rate of 80% and order prediction rate of 85% with the deployed models, demonstrating the effectiveness of the system in providing personalized recommendations to users.
  - Improved time consumption for the Food Recommendation Project by utilizing profiling and threading techniques to optimize Python scripts and data pipeline.
  - Created a Flask API for the models, enabling seamless integration with the frontend user interface and ensuring efficient and reliable communication between the frontend and backend.

TECHNICAL SKILLS

- **AWS**:
  - Experience with Amazon EC2, including launching and managing instances, creating and managing security groups, and implementing auto-scaling.
  - Experience with Amazon RDS, S3 and DynamoDB, including creating and managing databases, configuring backups, and implementing replication.
  - Used Elastic Beanstalk to monitor and troubleshoot web applications, including using CloudWatch, AWS Elastic Beanstalk Health and Elastic Beanstalk's event stream.

- **Docker & Kubernetes:**
  - Experience with creating, managing, and deploying Docker containers, including building and pushing images to a registry and running containers on different platforms.
  - Experience with deploying, scaling, and managing containerized applications using Kubernetes, including creating and managing pods, services, and deployment

- **Data mining**: SQL, MongoDB, S3, Pandas, Seaborn, Matplotlib, Scipy

- **Machine Learning Deep Learning**: Statistical Analysis, Linear and Logistic Regressor, Clustering, Handling outlier and anomalies, Feature reduction, Feature selection, Bagging and boosting algorithms, Clustering Models, Quantitative Analysis, Pytorch, SkLearn, Keras, OpenCV

- **Tools:**
  JIRA, Trello, Github Actions, Jenkins, SQL, Plotly, CronJobs, Streamlit, PyCharm, Anaconda Navigator, DataBricks, Wandb, MS-Visual Studio, Netbeans,Intellij Idea, Cypress, Selenium, JUnit Testing, Apache Airflow, Apache Spark, Django , Flask RESTAPI, Pycgi, GOlang, AJAX, JQUERY