Ambrose Tuscano

|ambrosetuscanojobs@gmail.com| +1 (443)-627-1151| Github | LinkedIn|

SKILLS

- **Languages & Tools:** Python, Java, SQL, TypeScript
- **Databases:** MySQL, PostgreSQL, MongoDB, DynamoDB, RDS, Redis
- **Frameworks:** SQLAlchemy, Mockito, Junit, Hibernate, Flask, Django, FastAPI, ReactJS, Spring Boot, Tensorflow.
- **AWS Services :** ECS, EC2, Lambda, Glue, Batch, Sagemaker, S3, RDS, SQS, SNS, Step Functions, Load Balancer, Athena, Quicksight, Kinesis Firehose, API Gateway, Cloudwatch, CDK, VPC Peering.
- **SDLC, DevOps & Agile**: Full SDLC Experience, Dockerization, Git Version Control, CI/CD Pipelines, Integration Testing & Canary Deployments, Requirements Analysis, Design Patterns & Principles, Agile, Test-Driven Development (TDD), Monitoring & Logging

PROFESSIONAL EXPERIENCE

Amazon *Software Engineer [Onsite Advertising]*   Arlington, VA | *May 2022 – Present*

- Designed and revamped an ETL (Extract, Transform, Load) service by leveraging AWS Lambda, resulting in the streamlined automation of product violation reporting in ad placement.
- Lead the successful migration of the Content Moderation REST API to AWS infrastructure, Implemented autoscaling using ECS and EC2 services and deployed Cloudwatch-based custom metrics for comprehensive monitoring resulting in significant cost reduction.
- Established secure cross-account connections with dependency services like RDS, adhering to industry-leading VPC best practices leading to enhanced data connectivity and improved collaboration.
- Implemented a reliable data backfill pipeline for efficient retrieval and processing of S3 bucket data updates by leveraging AWS services (Lambda, SNS, SQS, ECS, EC2, DynamoDB) to ensure seamless data flow.
- Lead the development and testing of a data pipeline using Step Function, Glue, and Batch job, improving efficiency and scalability.
- Optimized legacy code through effective refactoring techniques, incorporating CI/CD best practices into service pipelines and Enhanced logging and metrics for better observability.
- Actively engaged in on-call duties to ensure system reliability. Designed and implemented a comprehensive dashboard for efficient system monitoring.

Openrise *Software Engineer*   San Mateo, CA | *Feb 2022 – Apr 2022*

- Developed Python-based API calls for seamless integration with the Google Calendar API, enabling efficient data consumption.
- Implemented data pre-processing techniques and successfully ingested the processed data into a PostgreSQL database, ensuring optimal data organization and accessibility.

NXP Semiconductors *Software Engineering Intern*   San Jose, CA | *May 2021 – Aug 2021*

- Revamped the test suite using Python and Keras, applying advanced Machine Learning techniques in NLP and Unsupervised learning, leading to a 30% reduction in runtime and 50% less manual intervention.
- Developed a PyQt-based User Interface that automated the pre-processing of extensive data sheets, facilitating seamless querying and visualization of data graphs and enabling efficient analysis of business use cases

EDUCATION AND HONORS

University of Maryland, Baltimore County | *Master's of Science in Computer Science*   *December 2021*

University of Mumbai | *Bachelor of Engineering in Computer Science*   *May 2019*

KEY PROJECTS

Diabetes Detection Service: *FastAPI, Twilio, PostgreSQL, Docker, AWS, Postman*

- Developed REST API endpoints using FastAPI for Random Forest algorithm-based prediction functionality and account functionalities.
- Created a UI for seamless interaction with the APIs and Integrated Google Maps API to retrieve nearby hospitals data and utilized Twilio API for SMS and email updates.
- Dockerized the application for deployment on ECR and hosted it on EC2 cloud service, with PostgreSQL as the database.
- Utilized Postman for efficient API testing and validation, ensuring reliability and functionality of features and endpoints.

Sports Fantasy Application: *Android Studio, Java, Python Flask, PostgreSQL*

- Implemented a robust web scraper utilizing Python to fetch game information from external sources and populate PostgreSQL.
- Created an Android application using Java, providing sports information and hosting a Football Fantasy tournament.
- Designed and implemented a dynamic Flask-based REST API, seamlessly connecting the database to the Android application. The API facilitated engaging features such as updates on popular sports, interactive Fantasy scoring mechanisms.

Product Validation Service: *FastAPI, ReactJS, SQLite, Heroku*

- Built a QR code generation platform using FastAPI and ReactJS, providing item details from an SQLite database via SQLAlchemy ORM.
- Developed a robust REST API for validation, delivering JSON outputs to the front-end and hosted it on Heroku.

Peer to Peer Distributed File System: *Sockets, Multi-threading, Python*

- Architected a Distributed System using TCP protocol, enabling seamless File CRUD operations across multiple P2P connected nodes.
- Implemented a robust failure resilient architecture by incorporating replication strategy and employing version control techniques.