

JARRAR AMJAD, AWS CSA—ASSOCIATE, BE(CE) NUST

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| <https://jarraroptimized.com/> | <https://codeupbyjarrar.com/>

EDUCATION AND CERTIFICATIONS

Masters in Computer Science – Kansas State University, USA	2024
AWS Cloud Solution Architect – Associate Certification (SAA-C02)	2022
BE Computer Engineering – National University of Science & Technology, Pakistan	2018

PROFESSIONAL EXPERIENCE

Cloud Engineer , CEQUENS Telecom	10/2022 – 6/2024
<ul style="list-style-type: none">Designed and maintained CI/CD pipelinesMonitored applications via custom metrics on DataDogProvisioned and managed infrastructure via Terraform and AWS CloudFormationHandled networking management including Site-to-Site VPNs, ProxiesImplemented security best practices for IAM and infrastructure i.e. HTTPS certificates, Reverse ProxiesManaged voice infrastructure for end-to-end communication using Asterisk	
Chief Operating Officer , Trademan Enterprise Ltd	03/2021 – 6/2024
<ul style="list-style-type: none">Scaled UK protective covering supplier to £1.1M annual revenue as COO, achieving #1 Best Seller status on Amazon UKReduced inventory carrying costs by 35% through proprietary forecasting algorithms, maintaining 99.5% order fulfillment ratefull operational oversight from sourcing to distribution, implementing British Standards quality control and data analyticsDevelopment of a WMS (Warehouse management system) and FCC (Financial command center)	
Technology Officer , Pakistan Army	11/2018 – 05/2022
<ul style="list-style-type: none">Architected logistics movement plans based on graph networksImplemented intelligent routing for up to 5000 vehiclesIntegrated various land barriers in planning (weighted graphs)Implemented and monitored routine security best practicesProvided ad-hoc support for technology-related issues	
Machine Learning Engineer , Upwork	03/2018 – 08/2018
<ul style="list-style-type: none">Developed a high-frequency cryptocurrency trading bots with up to 10,000 microtransactions/minuteCustom algorithm with a 59% profit ratio, utilizing sentiment analysis and technical indicatorsSentiment analysis performed using NLP techniques like n-gram with a 92 % average accuracyDeveloped fully in Python, machine learning model trained via GCPDeployed to Windows systems with a fully functional GUI onto client trading facility	
Python Developer , Upwork	11/2017 – 03/2018
<ul style="list-style-type: none">Forex price prediction, and indicator analysis via computer vision in PythonUtilizing a combination of OCR and data feeds, we were able to extract data from a 3rd party APICoded fully in Python, deployed to Windows hosts	

PROJECTS

Kansas Water Institute Fellow

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Cryptocurrency Trading Platform - CCTP

Intelligent NLP-based high-frequency trading desktop application utilizing Binance API - [GitHub](#)

- Fully object-oriented platform with up to 10,000 microtransactions/minute via Binance API
- Custom algorithm with a 59% profit ratio, utilizing sentiment analysis and technical analysis
- Sentiment analysis via NLP/N-grams, technical analysis via SMA/EMA/Bollinger bands
- Coded in Python, Machine learning model trained via GCP
- Deployed to Windows hosts via docker

MLOPS AWS Sagemaker CI/CD Pipelines

End to End MLOps Pipelines based on AWS Sagemaker utilized by data scientists - [Github](#)

- GitHub and AWS CodePipeline for source control
- Use Cloudformation, CDK, and Terraform for IaC
- Redshift and S3 for storing ingested data from kinesis and otherwise
- AWS Sagemaker for ML Business Logic
- Docker, ECR, and Kubernetes for deployment and consistency
- AWS Step Functions and CodePipeline to Orchestrate workflow and Visualize CI/CD Pipeline
- API Gateways and Lambda functions for serving requests and computation respectively

Forrest Brazeal's Serverless Websites – www.jarraroptimized.com

AWS-based full-stack serverless websites - [GitHub](#)

- HTML, CSS, JavaScript frontend hosted on S3
- AWS Serverless Application Model (SAM) (CloudFormation) for Infrastructure as Code
- DynamoDB, Lambda, and API Gateway for real-time visitor counter
- Route 53, ACM, and CloudFront (CDN) for HTTPS/SSL
- GitHub Actions for CI/CD using the AWS/SAM CLI

Logistics Optimization System

Logistics system based on graphs to suggest the most optimal path - [GitHub](#)

- Architected logistics movement plan based on graph network
- Intelligent routing for up to 5000 vehicles tested
- Various land barriers factored in (weighted graphs)
- Coded in Python with the help of LeafletJS, OpenStreetMap, and pandas
- Output dynamic routes based on a multitude of factors

Signal Analyzer for Forex

AI-Algorithm trained on computer vision to detect profitable trades - [Demo](#)

- Technical indicator analysis via computer vision
- Utilizing a combination of OCR and data feeds, we were able to extract data from a 3rd party API
- Coded fully in Python, deployed to Windows hosts

Advertisement Classification Based on Google Inception V3

Video ads classification using Google Inception V3 (GCP) - [Demo](#)

- Advertisement classification via Python/inception v3
- Achieved 87 % accuracy, with the ability to process 100's videos
- Google inception v3 re-trained as per own requirement

RESEARCH

- Deep Learning-Based Approach for Identification of Potato Leaf Diseases Using Wrapper Feature Selection and Feature Concatenation
- Knee Osteoarthritis Detection and Classification Using Autoencoders and Extreme Learning Machines
- An Integrated Deep Learning Framework Using Adaptive Enhanced Vision Fusion and Modified MobileNet Architecture for Precision Classification of Skin Diseases with Enhanced Diagnostic Performance
- A Comparison of Bacterial Colonies Count from Petri Dishes Utilizing Hough Transform and Traditional Manual Counting