

M Mohsin Anees

Principal Software Engineer @ iBlinkX

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Work Experience:

iBlinkX – Principal Software Engineer

Dubai, United Arab Emirates (remote) — Oct 2023 onwards

Helped launch the AI-centred F&B platform at iBlinkX currently being used across multiple restaurants across UAE. My responsibilities include leading the team mainly focusing on Data engineering and AI but delving in Backend, DevOps, Product and Frontend development from time to time.

Work includes:

- Setting up base for the different modules required for daily data gathering and restaurant operations (ordering system, inventory system, financials, digital menus, marketplace apps, loyalty campaigns)
- Build AI-powered business tools for the platform using the data gathered:
 - AI Waste to revenue convertor - launch discount promotions on social media and/or third-party marketplaces for items nearing expiry to maximise profits
 - AI Chatbot for promo generations - chat gpt-like interface for clients to generate sensible promotions to run custom made promotions on marketplaces
 - AI menu item recommendations - recommend cross-sell / upsell promotions for restaurants. For customers, share tailor-made recommendations based on their past orders
 - AI menu Ingestion engine - able to import restaurant menu with prices from pictures of physical menu, making onboarding non-digital restaurants easier
 - AI based auto-inventory replenishment - track inventory usage/wastage/replenishment to make intelligent suggestions on how much to re-order
 - Neighbourhood pulse - scrape publicly available data from marketplaces about other restaurants/cuisines/menu items being offered in supported areas. Generate actionable insights and reports from this data
 - MyPulse - scrape customer reviews from the public domain. Run sentiment analysis and consolidate actionable reports
- Coordination with different departments for smooth product development and operations.
- Maintenance and enhancement of existing modules.
- Help with onboarding new clients in tandem with the Sales team.
- Hiring and mentoring team.

Reference Links: iblinkx.com

Skills: Python, Javascript, OpenAI API, AWS Comprehend, AWS Textract, Amazon Bedrock, HuggingFace (StableDiffusion 3.5)

Payment Gateway:

Designed, developed and launched an in-house payment gateway for iBlinkX. The payment gateway allowed taking fiat / crypto payments online seamlessly.

Work included:

- Design and developing backend, from API contracts to data modelling and warehousing
- Cloud infrastructure design and implementation on AWS
- Third-party integrations with Stripe, Telr, Mashreq Bank and B2binpay
- Coordinated with the frontend team to design UI/UX flows and helped launch gateway based on specs.

Reference Links: pay.iblinkx.com

Skills: Python, Javascript, Flask, Stripe, Telr, B2binpay, crypto payments, integrations, Devops, System design

iBlinkNext – Senior Software Engineer

Dubai, United Arab Emirates (remote) — Aug 2021 till Mar 2024 (2 years, 7 months)

Cloud-Kitchens:

Joined as the first backend engineer to build the foundations for the engineering team at iBlinkNext. I designed, developed and shipped the complete tech-stack behind the largest private label cloud-kitchen operator in the MENA region.

Modules developed:

- Cloud-based ordering and fulfillment system with integrations to external marketplaces (Talabat, Deliveroo, Careem, Noon etc.)
- Cutting-edge supply chain and inventory system with track and trace capabilities.
- Optimised kitchen display system with the following features:
 - realtime rule-based routing of items to stations across facilities
 - recipe instructions along with required ingredients for preparing orders
 - performance monitoring system by tracking amount taken on each step and ensuring benchmarks are being met
- Intelligent recipe generation AI based on flavor affinities
- Module for running A/B experiments on discount promotions on partner marketplaces (beta)
- Companion mobile apps for in-house delivery drivers and kitchen staff to help automate operations and track performance.
- ELT pipelines for Data warehousing (AWS redshift, redis, RDS)
- Business insights and reporting using presentation tools (Tableau, AWS Quicksight) for multiple departments across organization

Achievements:

- Helped scale the business 10x within 1 year, raising USD 42 million during the journey and expanding into Saudi Arabia
- Kubernetes based scalable system handling 15,000 orders per day (half a million transactions), with surges of up to 20 orders per second during peak hours.
- Improved order acquisition time by 98% (down to 10 milliseconds) via automation.
- Optimised food preparation time on average by 60% across the board by presenting actionable insights on operations.
- Helped relieve operational overload on the supply chain by automating the processes involved. Essentially reducing half a day effort down to a few minutes.

Skills: Python, NodeJS, Javascript, Flask, ReactJS, NextJS, Microservices, AWS, SNS/SQS, RDS, Redis, S3, EKS, ECS, Redshift, Quicksight, Tableau, ExpressJS, Websockets, Docker, Kubernetes, CI/CD, Jenkins, Puppeteer, Slack Bots, Kepler.gl

Crypto Platform:

I was responsible for the research and development of Taykoph platform. The trading platform allowed cross-chain trading, automated portfolio management and providing realtime market updates consolidated from different sources.

Features developed:

- Integrating with Dune Analytics for useful historical metrics
- Allow cross-chain trading via Phala Network
- Realtime market updates from exchanges including CEXs (Binance, Coinbase) and DEXs (Uniswap, PancakeSwap, Sushiswap etc.)

Reference Links: taykoph.com

Skills: Javascript, Python, NextJS, Blockchains, Dune Analytic, Phala Network, Blockchains, Decentralised exchanges (DEX), portfolio management

Algorithmic Trading Bots:

Developed a Solana based market maker capable of generating trading surge in trading volume on the crypto exchange Raydium.

Worked in tandem with professional traders to help create a Slack bot capable of trading on multiple exchanges including traditional ones via MT5 and crypto DEXs.

Skills: Solana blockchain, Javascript, Python, Raydium, MT5, Slack bot, market trading

Buzzware Tech – Co-founder, Vice President (Engineering)

Islamabad, Pakistan — Aug 2019 till Aug 2021 (2 years)

Managing a team of engineers to provide design, development and documentation services to multiple clients across the globe. Projects ranged from embedded devices (Internet of Things) to custom web and mobile applications.

Some of the projects worked on:

- LoRaWAN based weather monitoring and data gathering solution - designed and developed weather monitoring sensors deployed in Royal Randwick Racecourse, Sydney for the client [Triplesdata](#). The project utilized AWS IOT Core for scalability and relied on LoRaWAN communication for uploading sensor readings to the portal.
- Digital Solar Heating Project - prepared the hardware (pcb designing) and software (embedded and web application) for running an interseasonal heating system based on solar heating. The pilot system was deployed in a residential building in Wellington, New Zealand. The proof-of-concept was prepared on PLC boards by [Widgetlords](#)
- Remote Meter readings via MBUS protocol - designed and developed remote meter reading system based on Raspberry Pi and MBUS communication protocol for residential complexes based in Helsinki, Finland
- Subscription Discord Bot - integrations for payment provider (stripe) with paid discord group. The bot used to handle onboarding/kicking off members from the server depending on their subscription status

Skills: C++, C, Python, Altium Designer, EagleCad, PCB Designing, Reverse Engineering, LoRaWAN, AWS IOT Core, Raspberry Pi, PIC16, ESP8266, Linux, I2C, UART, SPI, MBUS protocol, MQTT, Microcontrollers, PHP, Codigniter, Jquery, Javascript, Arduino, STM32, DC Brushed & Brushless Motors, Motor Encoders, Bluetooth, IMUs, Force/Load Sensors

Parallax Solutions – Embedded Engineer, Development Team Lead

Islamabad, Pakistan — Aug 2017 till Aug 2019 (2 years)

Worked on hiring and managing a team of engineers to provide design and development services to multiple clients across the globe. Main areas were related to embedded engineering projects.

Some of the things worked on:

- Digital Temperature sensor (PIC16 8-bit):
- Proteus Design and Practical implementation
- Interfacing temperature sensor with ADC
- LCD interfacing for UI
- UART and timer module for external interface and scheduling.
- Product Design and testing of Smart Switch using ESP8266 WiFi module with following main features:
- Ability to show real time voltage, current, power and switch status on mobile application via internet (cloud) or direct connection.
- Ability to configure, turn on/off devices and implement schedules through a mobile application.
- Schematic design and verification.
- Multi-layer PCB and footprint designing using Altium Designer.

Skills: C++, PCB Designing, Circuit Designing

Knowledge: MQTT, Altium Designer, Proteus

Hardware: PIC16, ESP8266, LCD, UART, ADC, Voltage Transformer, Current Transformer

Education:

Bachelor of Science (Electrical Engineering) — 2017

FAST - National University of Computer and Emerging Sciences, Islamabad

Final Year Project: Autonomous Car Parking – A model car robot which is able to automatically find available car parking in a controlled environment and then park without any human intervention.

Licenses & Certifications:

Applying Machine Learning to your Data with Google Cloud — Jan 2025

Perform Predictive Data Analysis in BigQuery

Build and Deploy Machine Learning Solutions on Vertex AI

Production Machine Learning Systems

Engineer Data for Predictive Modeling with BigQuery ML

Monitor and Manage Google Cloud Resources

Use Machine Learning APIs on Google Cloud

The Basics of Google Cloud Compute

Create ML Models with BigQuery ML
Classify Images with TensorFlow on Google Cloud
Build LookML Objects in Looker
Baseline: Data, ML, AI
Analyze Sentiment with Natural Language API
Generative AI Explorer - Vertex AI
Google
[Google Developer Profile](#)

Solana Blockchain Developer Program — Apr 2023
Nas.io
Cohort 5
Learned basics of developing Dapp on Solana Blockchain.

Customised course in the theory & practice of Data Science (Private Group) — Aug 2022
Data Science Dojo
Basics of data science and machine learning with hands-on workshops on Algorithms and techniques used in data science.

Redis Enterprise Bootcamp (Private Group) — Sep 2021
Redis
Learned the fundamentals of Redis new offerings in the Enterprise editions (Search and Query, JSON, Time Series)

Other Experience:

- Fiverr – Freelancer (IOT devices, Microcontroller related work, PCB & Circuit Designing)
Islamabad, Pakistan — July 2016 till Present
- FAST – NU, Islamabad – Head Admission Officer
Islamabad, Pakistan — June 2016 till July 2016

Activities:

- Event Head, Battle of Bots (Robowars) '16 — 2016
- Coordinator, Robowars, NaSCon '15 — 2015
- Volunteer, First Lego League — 2014

Achievements:

- Secured 1st Position in Competition of "Robowars" at IEEE Electrica '15, NUCES, Islamabad.
- Secured 1st Position in Competition of "Robowars" at NaSCon'16, NUCES, Islamabad.
- Secured 1st Position in Competition of "Robowars" at AirTech'16, Air University, Islamabad.
- Secured 2nd Position in International Robotics Challenge, Techfest 2014-15 (Zonal Round – Pakistan) and qualified for the Grand Final