

# Zaki Qasim

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Open to Relocation

## PROJECTS & EXPERIENCE

### IoT Device Detection & Cyber Attack Prevention – Ebryx [2024-2025] - Lahore

*React.js, Kafka, Python (XGBoost, Random Forest), CICFlowMeter*

- Built a **real-time IoT security platform** that analyzed **10,000+ network packets per second** and detected cyber-attacks with **92%+ classification accuracy**.
- Streamed and processed **millions of packets** through Kafka into Python ML pipelines, reducing latency by **30% compared to baseline processing**.
- Reduced false positives by **15%** using a confidence threshold filter on model predictions.
- Simulated **DDoS attacks from 20+ Raspberry Pi devices**, and the system successfully identified malicious traffic with **high precision (>90%)**.
- Developed React frontend with authentication, real-time “Scan Now” functionality, and results dashboard for **50+ concurrent users**.
- Authored full project documentation under Ebryx supervision

### Fake News Detection Using BERT and Knowledge Graphs

*Python, Hugging Face Transformers, Neo4j, PyTorch*

- Designed a hybrid detection system combining **BERT-based classification (F1: 88%)** with **graph verification** using Wikidata/DBpedia.
- Boosted detection accuracy by **12%** over baseline BERT-only models by fusing structured knowledge graphs.
- Evaluated with **BLEU/ROUGE metrics and graph matching**, demonstrating **15% improvement in factual consistency**.
- Built Flask/Streamlit real-time interface supporting **100+ user queries/day**.

### TechNest – Tech-Focused E-Commerce Web App

*React.js, Redux Toolkit, Tailwind CSS, Node.js*

- Developed a **responsive e-commerce platform** handling **500+ products** with advanced search, filters, and order tracking.
- Implemented secure authentication and shopping cart system, reducing cart abandonment by **20%** (test case simulations).
- Developed admin dashboard for product management and sales analytics.
- Integrated dark mode, wishlist, simulated payments, and product ratings.

### Subscription Task Exchange App (Team Project)

*Java, Android Studio, Firebase*

- Built an **Android app with 3 user roles** (Content Creator, Task Doer, and Admin) to simulate a marketplace for subscription-style task completion.
- Designed a **screenshot-based verification workflow**, reducing fraudulent task completions by **~25% in testing**.
- Leveraged **Firebase Realtime Database & Authentication** to securely manage **500+ test users** and their task records.
- Implemented tab-based UI with **real-time updates**, enabling users to track progress and task completion instantly.
- Collaborated with teammate to deliver a functional **end-to-end mobile application prototype** demonstrating monetization, task management, and admin oversight features.

## EDUCATION

### NATIONAL UNIVERSITY OF ENGINEERING AND EMERGING SCIENCES (FAST) – Lahore

*Bachelor of Science in Computer Science*

| Aug 2021 – Aug 2025

## LICENCES & CERTIFICATIONS

**IBM – MACHINE LEARNING IN PYTHON**  
2024

**Google – TECHNICAL SUPPORT  
FUNDAMENTALS** | 2023

**Google – THE BITS AND BYTES OF  
COMPUTER NETWORKING** | 2023

**IBM – DATA SCIENCE** | 2023

## SKILLS

**FRONTEND** | React.js • JavaScript •  
HTML • CSS

**BACKEND** | Node.js • Express • Python  
• Flask • Firebase

**ML & NLP** | BERT • XGBoost • Random  
Forest • Scikit-learn • Neo4j

**ANDROID** | Java • Android Studio •  
Firebase • SQLite

**TOOLS** | Git • Postman • Linux

**SOFT SKILLS** | **Team Player • Problem  
Solver • Fast Learner • Delivers Results  
Additional** | C • C++ • Data Structures  
and Algorithms

## Wordpress

- Removed Malicious code in PHP from WordPress Plugins.
- Improved SEO via Google/Bing Webmaster Tools, increasing **organic traffic by 40%**.
- Optimized site performance, achieving **95+ Google PageSpeed score**.
- Migrated and set up hosting on **Google Cloud, AWS, and Azure**, cutting downtime to **under 5 minutes per transfer**.