

IRFAN ULLAH

Lead Engineer • Backend & Platform Engineering • Android TV / Google TV • Security Engineering

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PROFESSIONAL SUMMARY

Lead Engineer with 10+ years of experience in enterprise software engineering across startups and global organizations. Builds Android TV / Google TV platforms, enterprise backend systems, AI solutions, and security automation, including backend services supporting millions of connected devices. Deep expertise in backend architecture (Node.js, Django, Python), REST APIs, microservices, database optimization, and full-stack development (MERN/PERN). Expanding into cybersecurity engineering: SOC operations, threat intelligence (OpenCTI, MISP), SIEM engineering (Wazuh, ELK), and Python-based security automation.

CORE SKILLS

Backend: Node.js, Express.js, Python, Django, REST APIs, GraphQL, Microservices, Backend Architecture

Smart TV Platforms: Android TV, Google TV, AOSP, Java, Kotlin, ExoPlayer, Middleware & Platform Services

Frontend: React.js, Redux, JavaScript (ES6+), Chrome Extension APIs

Databases: PostgreSQL, MongoDB, Elasticsearch, MS SQL Server (schema design, query optimization)

Cloud & DevOps: AWS, Docker, Git, Linux, CI/CD, Agile/Scrum

Cybersecurity: SOC Operations, Incident Response, Threat Intelligence (OpenCTI, MISP), SIEM (Wazuh, ELK Stack), IDS/IPS (Suricata, Zeek), OWASP Top 10, Python Security Automation

Data & AI: Deep Learning, TensorFlow, OpenAI APIs, Data Mining, Web Crawling (Selenium, BeautifulSoup)

PROFESSIONAL EXPERIENCE

Lead Engineer | Arçelik Global

Mar 2023 – Present

Islamabad, Pakistan

- Design and develop scalable backend services supporting millions of connected devices across the Remoteasy universal Smart TV remote and HomeWhiz smart home ecosystem.
- Contribute to the Beko Android TV / Google TV platform and RCOS SDK — platform-level features, middleware improvements, multimedia playback optimization (ExoPlayer, AOSP), and production stability.
- Build and maintain secure REST APIs and enterprise-grade microservices with cloud integrations (AWS) for mobile, Smart TV, and connected appliance services.
- Optimize database performance and query efficiency; resolve complex production issues across distributed, global engineering teams.
- Drive engineering best practices — code review standards, feature planning, and mentorship of junior and mid-level developers.

Full-Stack Developer (Freelance) | Independent

Jan 2021 – Present

Remote

- Deliver end-to-end web applications for international clients using the MERN/PERN stacks, from requirements through deployment.

Full Stack Engineer | Kryptohive

Jan 2023 – Mar 2023

Rawalpindi, Pakistan

- Developed full-stack features for blockchain-oriented products, spanning React frontends and Node.js services.

Senior Software Engineer | Troon Technologies

Jan 2021 – Aug 2022

Pakistan

- Built and shipped scalable web applications and services using React, Node.js, and MongoDB; contributed to architecture, database design, and performance optimization across multiple client products.

Research Assistant | National Center in Big Data & Cloud Computing

Jan 2019 – Dec 2020

Peshawar, Pakistan — UET Peshawar & Higher Education Commission project

- Conducted applied research in deep learning and data science on a national HEC-funded project; developed machine learning pipelines and experiments.

Software Engineer | Allainet Pvt Ltd

Aug 2015 – Dec 2018

Islamabad, Pakistan

- Developed product features for a product-based company, focusing on web development and data mining systems.

Software Engineer | Technokeet Pvt Ltd

Sep 2014 – Jul 2015

Islamabad, Pakistan

- Built and maintained web applications as part of the core development team in an agile environment.

FEATURED PROJECTS

Remoteasy — Universal Smart TV Remote [Google Play](#) — [Node.js](#) · [Python](#) · [PostgreSQL](#) · [Docker](#) · [REST APIs](#) · [Android TV](#) / [Google TV](#)

- Built scalable backend services and REST APIs powering a universal remote app controlling Smart TVs across many brands, supporting millions of connected devices with secure cloud-based device management.

HomeWhiz — Smart Home Ecosystem [Google Play](#) — [Node.js](#) · [Django](#) · [Python](#) · [PostgreSQL](#) · [MongoDB](#) · [Docker](#) · [AWS](#)

- Developed enterprise-grade backend microservices and secure, scalable REST APIs connecting home appliances, IoT devices, and cloud services; optimized database performance and system reliability.

Beko Android TV & Google TV Platform / RCOS SDK [rcossdk.com](#) — [Android](#) · [Android TV](#) · [Google TV](#) · [Java](#) · [Kotlin](#) · [ExoPlayer](#) · [AOSP](#) · [Node.js](#)

- Enhanced platform-level features, middleware components, and multimedia playback performance for Beko Smart TVs; contributed SDK improvements and backend integrations for the Smart TV development platform.

Arctobius Web Crawler [Chrome Web Store](#) — [Python](#) · [Django](#) · [Selenium](#) · [BeautifulSoup](#) · [JavaScript](#) · [Chrome Extension APIs](#)

- Designed the crawler architecture and rule-based extraction pipeline for a configurable web crawling platform, with browser automation and scalable data extraction and processing modules.

AI-Powered SOC Automation System (Research) — [Python](#) · [Wazuh](#) · [Elasticsearch](#) · [Docker](#) · [OpenAI APIs](#)

- Built an AI-assisted SOC platform: alert prioritization, security event classification, threat correlation, log enrichment, automated incident response workflows, and security dashboards.

Threat Intelligence Platform (Research) — [Python](#) · [OpenCTI](#) · [MISP](#) · [GraphQL](#) · [Docker](#) · [Wazuh](#)

- Integrated OpenCTI and MISP with automated IOC synchronization, GraphQL-based data collection, IOC enrichment pipelines, and Wazuh integration for threat correlation and analysis.

IDS + Automated Response System (Research) — [Suricata](#) · [Wazuh](#) · [Python](#) · [Linux](#) · [Docker](#) · [ELK Stack](#)

- Wired Suricata IDS alerts into Wazuh SIEM for real-time, IOC-based threat detection with automated firewall response and incident response automation.

CERTIFICATIONS

- CompTIA Security+ · CompTIA CySA+ (Cybersecurity Analyst) · CompTIA Network+
- CCNA — Cisco Certified Network Associate (Routing & Switching)
- Blue Team Level 1 (BTL1) — SOC & Incident Response Fundamentals
- DeepLearning.AI TensorFlow Developer · IBM Data Science

EDUCATION

Master's Degree, Information Security (In Progress) | Riphah International University

Present

Bachelor's Degree, Information Technology | University of Engineering and Technology, Taxila

2010 – 2014