Talha Zafar

Back-End Engineering Specialist with 3 Years of Expertise in High-Performance System Development

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SUMMARY

A software engineer, Proficient in backend development utilizing Python, Django, Flask, and Node.js, Nest.js, JavaScript, and TypeScript, I possess a strong foundation in cloud infrastructure on AWS and GCP. My experience encompasses database management with SQL and NoSQL, and a proven ability to architect and implement scalable web applications while adhering to the Software Development Life Cycle (SDLC) best practices.

SKILLS

Backend:	Python • Django • FastAPI • Flask • TypeScript • Nest.js • Node
Architecture:	Microservices • Monolithic • Event Driven
DataBases:	PostgreSQL • MongoDB • MySQL
Tools:	Git • CI/CD • Docker • AWS • Redis • Celery • GCP • Jira • Linux
Techniques:	Secure Coding • Parallel & Distributed Computing • Secure Communication System Design Patterns • Data Protection • Restful APIs

EXPERIENCE

BoolMind   Python | Flask | TypeScript | Nest.js | Micro Services | Monolithic | GCP

Software Engineer | Jan 2024 - Present | Lahore, Pakistan

- Manage My Dojo [Present]
  1. Designed and implemented APIs, and established microservices for event handling and management, ensuring precise statistical tracking.
  2. Integrated microservices and an API Gateway using gRPC for seamless communication, incorporating models and modules for complex scenarios.
  3. Designed and optimized data pipelines utilizing Mongoose ODM, significantly reducing API and microservice calls for enhanced efficiency and cost-effectiveness.
  4. Successfully launched the beta version, meeting all performance and functionality requirements.

Achieved a 25% increase in investor interest by showcasing a robust Beta version, emphasizing innovative features and projected market impact, resulting in successful funding rounds.

- TalabAi [Present]
  1. Architected and implemented a scalable backend system using Flask, supporting a monolithic architecture.
     - Improved data processing speed by 45% and reduced server load by 20%, ensuring seamless user interactions.
  2. Designed and implemented a schema on PostgreSQL for handling products and user data.
  3. Integrated LLM third-party APIs to enable voice-based order placement.
  4. Strengthened code quality by implementing unit tests using Pytest for each API, achieving a 20% reduction in bug incidents.

Successfully attracted client interest, leading to additional project acquisitions.

Techleadz   Python | Flask | Django | FastAPI | AWS | Node

Junior Software Engineer | Sep 2022 - Dec 2023 | Lahore, Pakistan

1. Collaborate with cross-functional teams to design, develop, and deploy web applications using Django framework.
2. Utilize Django REST framework to build robust and secure APIs, enabling efficient and secure data communication using Elliptic-curve Diffie–Hellman, interaction with flutter mobile app
3. Deployed microservice using flask for Attribute Base Encryption for Encryption and Decryption.
4. Implement asynchronous programming techniques using beanie ODM and optimized queries in FastAPI to optimize code execution and enhance application responsiveness by handling long tasks using celery queues.
5. Contribute to the development of cutting-edge machine learning models and algorithms, integrating AI models into different projects.
6. Containerized a FastAPI application to handle tasks such as port scanning using Celery for task queues. Scaled the backend to support high traffic in an Attack Surface Management (ASM) tool. Used Redis to reduce database calls in the ASM tool.
7. Designed a file storage and management system using Nextcloud. Managed permissions, authentication, and authorization, synchronized files during editing, ensure data protection, and implemented a lock mechanism using REST APIs with Flask. Dockerized application using Docker Compose for efficient deployment and management.
8. Examine the product nature and convert graphQL APIs to REST APIs, optimize the APIs uisng Express, restructure project of node, redesign schema and queries usning mongoose.

EDUCATION

National University of Computer and Emerging Science (FAST)

Bachelor in Computer Science
Aug 2018 - Jun 2022
Islamabad, Pakistan

HONORS & AWARDS

Best Volunteer

Awarded for exceptional voluntary work and contribution to the charity society.
Daira (An Event organized by FAST-NUCES)
Mar 2020

Volunteer Work with Silent Step Society

Assisted in organizing events, raised awareness about charity, and provided support to the community.
Silent Step Society (NUCES-FAST)
Jan 2022

COURSEWORK

- Programming Fundamentals, Object oriented programming, Data Structure.
- I studied Machine Learning, Artificial Intelligence, Deep Learning, Data Mining.
- I studied Relational Databases, Operating Systems, Computer Networking.
- I studied Calculus I & II, Linear Algebra, Numerical computing and statistics.

INTERESTS

Travelling, Cricket, Tech News
Cycling, Exercise, Movies