Emad Ehsanrad
Senior Software Engineer

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SUMMARY

Senior Software Engineer with over **7 years** of experience building **scalable**, **user-focused** web applications in Agile environments. Skilled in **Python**, **JavaScript**, and frameworks like **Django** and **FastAPI**, I've **delivered efficient**, **high-performance** solutions for **100,000+ users**. Consistently worked in **international environments** with **cross-functional teams** to drive growth through **innovative solutions**. Committed to **continuous learning** and adapting to emerging technologies. Active **open-source contributor**.

WORK EXPERIENCE

Senior Software Engineer, troweb   Remote - Dubai, UAE
AI powered knowledge management system (KMS) for businesses.   Aug 2023 - Present

- Developed **AI-driven** solutions (**RAG pipelines**, **agentic workflows**) to enhance automation and **intelligent decision-making**.
- Engineered scalable microservices using **FastAPI** and **gRPC**, ensuring **high-performance inter-service communication**.
- Designed and implemented an **event-driven** architecture leveraging **Kafka** and **Kubernetes**, reducing latency by 30%.
- Contributed to achieving **SOC 2 Type II** certification by collaborating with compliance teams on **quality** and **security** standards.
- Mentored new engineers through a **custom onboarding program**, accelerating team integration and fostering a culture of **knowledge-sharing**.

Software Engineer, edSPIRIT   Remote - Dubai, UAE
Cloud-based Open edX solutions, providing hosting, consulting, and customizations.   May 2021 - Aug 2023

- Led the design and development of a **scalable SaaS platform**, adopted by **200+** academic institutions and universities.
- Managed seamless migration of infrastructure from **AWS EKS** to in-house clusters, ensuring a **highly available and resilient** environment with **99.99%** uptime.
- Recognized as a **core contributor** in the **Open edX community**, an open-source learning platform used by millions.
- Developed a real-time KPI dashboard using **OpenTelemetry**, **Grafana**, and custom data pipelines, **improving operational visibility by 40%**, and pushing the culture of making **data-driven decisions**.
- Partnered with the sales team in client meetings, **translating complex technical concepts** into actionable solutions, leading to improved customer satisfaction and **faster deal closures**.

Software Engineer, Pubnito   Remote - Toronto, Canada
Content-based platforms and services provider.   May 2019 - Apr 2021

- Established **multi-tenancy** support, enhancing **scalability** and reducing operational costs by **30%**.
- Devised a web scraping tool that **automated 100%** of the EPUB creation workflow, saving our content team **3+ months of work**, which Aided to **securing a partnership** with Rice University.
- Deployed **SSO authentication with Keycloak**, boosting security, system efficiency, and enhancing user experience.
- Migrated monolithic applications to a containerized environment using **Docker** and **Kubernetes**, improving deployment efficiency and system reliability.
- Empowered all teams with **workshops**, boosting **skill development** and applying new techniques in daily tasks.

Backend Developer, InstructHub   On site - Tehran, Iran
Cutting-edge company specializing in delivering innovative e-learning solutions.   Sep 2017 - Jan 2019

- Refactored a large **legacy codebase** from Python 2 to 3, resulting in system performance and using modern libraries.
- Collaborated with stakeholders to redesign core business processes, **cutting turnaround times** by **45%**.
- Optimized database queries and introduced **caching strategies**, reducing average API response time.
- Configured and managed **CI/CD** pipelines that reduced deployment times by **70%** and minimized production errors.
- Set up centralized **logging and monitoring** with **ELK stack**, reducing issue detection time **from days to hours**.

SKILLS

Languages: Python, JavaScript, TypeScript, SQL, GraphQL   **Databases**: MySQL, PostgreSQL, MongoDB, ClickHouse, Neo4J

Soft Skills: Team work, Problem-solving, Adaptability, Communication   **Frameworks**: Django, Flask, FastAPI, Next.js

Tools: Kubernetes, Helm, ELK, Docker, GitHub Actions, GitLab CI, Jenkins, Prometheus, Grafana, OpenTelemetry, Kafka, RabbitMQ

Cloud Platforms: Amazon Web Services (AWS)

EDUCATION

Kermanshah University of Technology   Kermanshah, Iran
Bachelor of Science in Telecommunication Engineering   Sep 2012 - May 2016
Javad Al'Aeme   Kermanshah, Iran
Diploma in Mathematics and Physics   Sep 2008 - May 2012

VOLUNTEER EXPERIENCE

Content Creator, **CodeTherapy**   Remote
YouTube channel teaching Python to Persian-speaking audiences.   Sep 2019 - Present

- Created educational videos on **Python programming**, fostering a growing **community of learners**.
- Designed **step-by-step tutorials** and **project-based lessons** to simplify complex programming concepts for beginners.

Technical Mentor, **Local Coding Bootcamp**   On site
In-person coding bootcamp for aspiring developers.   Jul 2020 - Present

- Mentored **100+** students in Python, JavaScript, and development, providing guidance and support in their learning journey.
- Developed **curriculum materials** and **resources** to help students grasp complex concepts and improve their coding skills.

PROJECTS

Here to Help: Free resources and services for crisis support: Essential resources in difficult times, with **1000+ daily active users**.
Painless Maintenance: Helm chart for deploying **maintenance pages** in Kubernetes, preserving user experience during downtimes.
Natural SQL Explorer: AI-powered tool converting **natural language** to **SQL queries** with schema discovery and **real-time results**.
Open Source Contributions: Actively contributed to projects like **Apache Superset**, **Django**, **Pydantic**, and **Open edX**.

CERTIFICATES

AWS Cloud Practitioner, Amazon Web Services   Feb 2025
Neo4j Certified Professional, Neo4j Graph Academy   Jan 2025
Cisco Certified Network Associate (CCNA), Institute of Applied Science Technology   Aug 2020

LANGUAGES

English: Full professional proficiency   **German**: Elementary proficiency   **Persian**: Native

HOBBIES & INTERESTS

- Reading books on **technology** and **self-improvement**.
- Playing **chess** and **strategy games**.
- Traveling and exploring new **cultures**.
- Volunteering in **community events**.