Babak K. Shandiz *Software Engineer (1988–)*

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Summary

I started programming at an early age. This provided me with the opportunity to experience some influential platforms/technologies, like *Commodore 64* or *Sinclair Spectrum* and rather modern ones like *VB6* or *Turbo C++*. I've been using *C#* and *.NET* since their early days, and soon found myself being passionate about *Object-Oriented Programming* and began exploring books and articles (mostly on *The Code Project* then) on design patterns, application architecture, clean coding and experimenting ideas and self-thoughts.

In the late 2000's, relational databases attracted my attention more than before. Since then, I occasionally read on database design and other concepts on the topic and try to make a point of following standards on my projects. I also have hands on experience on leveraging *NoSQL* or *key/value pair* databases.

Out of workplace, I actively provide consult to governmental or personal software projects. In my spare time, I'm curious learner and a developer who is passionate about *C#/TypeScript* and occasionally contributes to open-source projects. My last but not least interest is creating technical content based on day-to-day experiences, which I currently follow through sharing on my personal weblog at Github and DEV.

Currently, I'm a senior software engineer at *Cafebazaar*, the *largest* Iranian Android app store[1] and one of the top third-party app markets world-wide[2], developing high-load web services in *Go* and *Python*.

Experience

RayanShop   Mashhad, IRAN

RayanShop was a pioneer online-shopping startup in Iran, long before current well-known rivals like *Digikala*.

Full-Stack Developer   *2002 – 2004*

Developing back-end (*Classic ASP*) and front-end (vanilla *JavaScript*).

Ferdowsi University of Mashhad (FUM)   Mashhad, IRAN

Architect & Full-Stack Developer   *March '11 – Sep '11*

Designing and implementing the *National Bilateral Energy Market* web application using *ASP .NET* and *SQL Server*, as B.Sc. graduation project.

Mashhad Urban Railway Operation company (MUROC)   Mashhad, IRAN

Architect & Developer   *Mar '15 – Mar '17*

The project was to implement an integrated electro-mechanical simulation system to be used in further energy optimization studies. The platform was successfully realized, currently known as *SITRAX*.

Khorasan Regional Electric Company (KREC)   Mashhad, IRAN

KREC is a governmental company that manages and maintaines regional power transmission grid.

Researcher   *Nov '14 – Sep '15*

Research on *REF* protection schemes in transmission gird.

Researcher & Full-Stack Developer (Military Service for Elites)   *June '15 – Aug '17*

The research topic was to find the optimal solution for power transformer overloading dilemma. The implementation phase, was to develop a software platform that delivers research results as automated routines and user-friendly interfaces.

IT Consultant   *June '19 – Dec '19*

The project is an enterprise solution that covers several aspects of *Preventive Maintenance* (*PM*) routine, done on high-voltage substations, to remove paperworks and ultimately automate the current workflow. The project consists of mobile user interfaces, core function as back-end and relational databases.

Part Software Group   Mashhad, IRAN

Part is a *Fintech* company, developing financial solutions in stock market related and banking fields. The company also aims to provide basic infrastructure services as a rich service cloud.

Back-End Developer   *Sep '18 – Dec '18*

Senior back-end developer at *Public Services* team, with *nodejs* as platform. The services include (but not limited to): authentication/authorization, access control, user profile, messaging, and file storage.

Lead Back-End Developer   *Dec '18 – Aug '19*

At the *Public Services* development team.

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[1] Cafebazaar on Wikipedia
[2] Third-party Android app markets on Wikipedia

Lead Back-End Developer   *Aug '19 – Oct '19*
    At *.NET* development team, developing *Legal Tech* business web services.

Cafebazaar   Mashhad, IRAN
Cafebazaar is the *first* and *largest* Iranian Android app market[1] with 50M users[3], and one of the top third-party Android app markets world-wide.[2]

Senior Back-End Developer   *Jan '20 – present*
    At the *App-Delivery* team, the mission is to provide users with the latest versions of applications while keeping device compatibility as a constraint. High-load services, written in *Go* and *Python*, serve users with up to 2K requests per second.

Coding Interviewer   *July '20 – present*
    As a member of the *Software Enigineering Interview* team, I participate in review/interview process aimed at evaluation of applicants' coding skills. This involves evaluating various aspects from basics to more advanced topics including *OOP* design, *Clean Code/Architecture*, and *SOLID* principles.

OSS Contributions

Microsoft VS Code (`microsoft/vscode`)
    Contributed
        Versions 1.36.0 and 1.50.0.

Others
    VS Code Github issue notebooks, Oh My Zsh, Docker library docs, Helm charts, etc.

Education

Ferdowsi University of Mashhad (FUM)   Mashhad, IRAN
    M.Sc. in Electric Power Engineering   *2011 – 2014*
        Focused on high voltage power transformer protection schemes.

FUM   Mashhad, IRAN
    B.Sc. in Electric Power Engineering   *2007 – 2011*
        Implemented *National Bilateral Energy Market* web application using *ASP .NET* and *SQL Server*, as graduation project.

Malek-e-Ashtar College-preparatory School   Mashhad, IRAN
    College-preparatory Diploma in Mathematics & Physics Science   *2006 – 2007*

Honors & Awards

Ranked 1st among fellow students (B.Sc., GPA: 18.98/20.)   2011
Ranked 1st among fellow students (M.Sc., GPA: 19.17/20.)   2014
Served military service as academic elite.   2015–2017

Skills

Software design, concepts & protocols
    Object oriented programming, design patterns, SOLID principles, loose/tight coupling concerns, dependency injection, inversion of control, unit/integration tests, databases, web services, SOA, REST, microservices.

Software implementation & tools

Languages	*C#, TS/JS, Python, Go*; Familiar with *C/C++* and *Java*
Unit testing frameworks/tools	*NUnit, MSTest, Moq, mocha, jest, chai, sinon*
Front-end technologies/tools	*HTML, CSS, jQuery, Aurelia, Vue.js*
Back-end technologies/tools	*nodejs, ASP .NET MVC/Web API, ASP .NET Core, express.js, django*
Communication methods and tools	*gRPC, Protobuf, REST*
Databases	*SQL Server, Postgres, MongoDB, Redis*
Big Data Solutions	*Spark, PySpark, Hadoop*
Messaging technologies	*RabbitMQ, Kafka*
Metering and monitoring	*Prometheus, Grafana*

[3]As of December 2021

Source control and interfaces	*GIT, GitLab, GitHub*
Linux shells and tools	*bash, zsh, oh-my-zsh*
Orchestration/Containerization and tools	*Kubernetes, docker, helm*
IDEs, editors and development tools	*Visual Studio, VS Code, Postman*
Miscellaneous	LaTeX, *RegEx, MATLAB*
Natural languages	Persian (*native*), English (*full professional proficiency*), Arabic (*limited*)

Interests

Non-exhaustive and in alphabetical order: Art, books, graphics, mathematics, music, open source projects, painting, problem solving, riddles, software engineering, studying, teaching, video games, writing.