Solution/Systems/Software Architect

### **Contacts:**

Ivan Zakrevskii

Telegram-channel: https://t.me/emacsway\_log Blog: https://emacsway.github.io/ Www: https://emacsway.github.io/about/ Open Source: https://github.com/emacsway

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### About me:

Total of 17+ years of software development experience in delivering large-scale, high quality, performance-critical software and project management from software specification inception until product deployment and live launch.

Deep knowledge of modern architecture approaches: DDD, Microservices, EDA, CQRS/ES, Event Storming, Actor Model, Clean Architecture, Open Agile Architecture (a Standard of The Open Group), QAW, ATAM, ADD, UML, Archimate etc. Agile practices: CI/CD, TDD, Evolutionary Design, Collaborative Development, XP, Scrum etc. Software design: SOLID, LC&HC, GRASP, SRP, OCP, LSP, ISP, DIP, REP, CCP, CRP, IDP, SDP, SAP, KISS, DRY, YAGNI, GoF, PoEAA, Cloud Design Patterns, Enterprise Integration Patterns, Service Design Patterns, Conway's law, DSL-patterns, etc.

Deep theoretical and wide practical background. Extensive bibliography.

Experience of dealing with extremely complicated Domain/Application Logic, distributed systems, high performance, splitting monolith, working effectively with legacy code. Improvement of development economics and team velocity.

Participated in the development of software for various domains using wide technology stack: Python, JavaScript/Typescript, Golang, PHP, Django, Angular, ZF, with main focus on Python.

Strong leadership and management skills. Innovative, hands-on executive with record of leading design and development of high technology products, improving processes and procedures to drive revenue, efficiency, and market share. Successful leadership of teams of up to 15 members in IT-industry and up to 33 members in total.

My main interest is to make the code clean, simple and maintainable; the implementation of new features <u>rapid and cheap</u>; the curve of cost of code change asymptotic; the risks low; the team successful.

## **Education:**

1994-1999 - The Dnepropetrovsk State Technical University of Railway Transportation, master's degree

2018-2020 - Private Institute of Higher Education "Zaporizhzhya Institute of Economics and Information Technologies", Software Engineering, master's degree

### **Bibliography**

Software literature completely read by me: <a href="https://emacsway.github.io/about/bibliography/">https://emacsway.github.io/about/bibliography/</a>

Software literature partially read by me: https://emacsway.github.io/ru/self-learning-for-software-engineer/

My thoughts can be found at my Telegram-channel: https://t.me/emacsway\_log

## **Open Source Projects:**

## Python:

- <u>rope</u> (contributor) a python refactoring library.
- <u>SQLBuilder</u> (author) a lightweight Python SQLBuilder. Can be integrated with Django.
- <u>cache-dependencies</u> (author). Cache-dependencies (former Cache-tagging) allows you easily invalidate all cache records tagged with a given tag(s). The package supports Django.
- <u>Ascetic ORM</u> (author) a lightweight Python DataMapper ORM (the project is incomplete).

## JavaScript:

- Store.js (lead contributor) - a super lightweight implementation of Repository pattern for relational data and aggregates. The library allows you to use Domain-Driven Design (DDD) on client-side as well as reactive programming.

## **Articles:**

Articles in English:

- "How to quickly develop high-quality code. Team work."
- "Design of Service Layer and Application Logic"
- "About my experience of using Django Framework"
- "About problems of cache invalidation. Cache tagging."
- "Why I prefer Storm ORM for Python"
- ... all articles in English >>

# Articles in Russian:

- "О гонке сообщений в условиях конкурирующих подписчиков"
- "Domain Events in DDD"
- "Про Agile на пальцах. Путь к быстрой разработке."
- "TDD Разработка через тестирование"
- "Проектирование Сервисного Слоя и Логики Приложения"
- "Список литературы для самообучения разработчика программного обеспечения"
- "О моем опыте использования Django Framework"
- "О проблемах инвалидации кэша. Тегирование кэша."
- "Почему я выбираю Storm ORM для Python"
- ... all articles in Russian >>

## **Experience:**

Feb 2020 - present - Lead Architect at Open Mobile Platform Ltd. Participating at development of the mobile OS Aurora.

· Documenting architecture, business/system analysis and design, requirements gathering and prioritization, resolution of contradictions, planning, communication

with stakeholders.

- Introducing DDD, Event Storming, CQRS, DSL-patterns into Microservices Architecture with Golang.
- Responsible for team coaching in Software Design. Planning training courses. Participating in Code Review.
- · Continuous improvement of the development economy, reliability, performance, internal code quality.
- Designing distributed systems for extremely complicated Domain/Application Logic.
- API Desing and integration.
- · Designing High Load distributed systems, performance optimization, database and applications scaling.
- Introducing Continuous Code Review and other Agile practices.
- Improving the moral and psychological climate in the team.

Feb 2019 - Feb 2020 - Team Lead and Systems Architect at a fitness startup (the company name is under NDA).

- Introducing Agile development practices: CI/CD, TDD, Evolutionary Design, Collaborative Development, Continuous Code Review, Iterative planning, Scrum with XP etc.
- Documenting architecture, business/system analysis and design, requirements gathering and prioritization, resolution of contradictions, planning, communication with stakeholders.
  - · Continuous improvement of the development economy, reliability, performance, internal code quality.
  - Designing distributed systems for extremely complicated Domain/Application Logic.
  - · Significant architectural improvements using DDD, EDA, CQRS/ES, Microservices, Clean Architecture.
  - Splitting the monolith. Working effectively with legacy code.
  - Practical applying theory of algorithms.
  - · Participating in the team building. Interviewing of applicants.
  - Performing responsibilities of Solution Architect.

Jul 2017 - Feb 2019 - Systems Architect and XP coach at Business Technologies <a href="www.biz-tek.ru">www.biz-tek.ru</a>. The the company founded the well-known projects <a href="www.biz-tek.ru">ok.ru</a> and <a href="www.biz-tek.ru">sravni.ru</a>. I was participated in development of the enterprise content management system for medical journalism.

- Documenting architecture, business/system analysis and design, requirements gathering and prioritization, resolution of contradictions, planning, communication with stakeholders.
- Introducing best practices of Software Design and Agile software development (TDD, XP, CI, CD, DDD, Microservices, Evolutionary Design, Clean Architecture, etc.).
- Continuous improvement of the development economy, reliability, performance, internal code quality.
- Almost zero bugs due to TDD and Clean Code.
- Developed a proprietary library for Django model audit which implements Slowly Changing Dimensions (SCD) Type 4 and supports versioned relationships.
- "Monolith First" approach of Microservices building.
- Technology stack and approaches: Python, JavaScript, PostgreSQL, RESTful API, Django, Django-rest-framework, Angular5+, AWS, Heroku, Docker, Scrum, Jira etc.

Nov 2016 - Jul 2017 - Senior Full Stack Software Engineer (remote) at jooraccess.com, the global wholesale marketplace where the biggest brands and best retailers do business online.

- Introducing TDD (and some other practices of XP), DDD, Evolutionary Design, code review based on catalog of refactorings and catalogs of code smells, continuous review, monitoring with New Relic.
- Continuous improvement of the development economy, reliability, performance, internal code quality.
- Performing some responsibilities of Systems Architect.
- Created the high-level library <u>Store.js</u> to handle data on client-side.
- Technology stack and approaches: Python, JavaScript, PHP, Bash, Django, PostgreSQL, jQuery, AngularJS, Dojo, RESTful API, CORS, JWT, Django-rest-framework, CakePHP, Redis, Celery, Pl/SQL, AWS, Ubuntu, Scrum, etc.

Feb 2013 - Jul 2016 - Senior Backend Developer (remote) at project rebelmouse.com, the best online CMS for social websites.

- Using Evolutionary Design, TDD, code review based on catalog of refactorings and catalogs of code smells.
- High performance optimization. Monitoring with New Relic.
- Implementing social networks integration, polymorphic relations, ACL, statistics, data analytics.
- Technology stack and approaches: Python, Bash, Django, MySQL, MongoDB, RESTful API, Redis, Celery, Memcached, Eventlet, Ubuntu, replication, clustering, document-oriented data storage, Kanban, etc.

Aug 2011 - Mar 2013 - Senior Full Stack Software Engineer (remote) at tripster.ru, a Russian travel portal and FAQ for independent travelers. Technology stack and approaches: Python, JavaScript, Bash, Django, GIS, jQuery, MySQL, RESTful API, Solr, Nginx, Memcached, Debian, sub-processing, threading, Queue, Async, 3-d SQL Builders, morphology, fast compiled template engine wheezy.template, automatic text processing, etc. Implementing a lot of basic features, social networks integration, integration with geonames services, integration with partner's API, advanced ACL, flexible user notification, variouse Ajax UI widgets, cache dependencies, phased cache, cache cleaning synchronization with DB transactions. Performance optimization.

Jul 2010 - Jun 2011 - Team Lead at Soft-Ukraine. Developing an intracorporate portals. Technology stack and approaches: Python, JavaScript, Bash, Django, Dojo, jQuery, PostgreSQL, RESTful API, MVVM, dojox.data.JsonRestStore, Ajax UI, Ruby On Rails, Pinax, Debian, Multilingual, etc. DevOps.

Oct 2009 - Jul 2010 - Co-founder and CTO at Dstudio. Organizing mass production of business card sites using Drupal. Developing a city portal using Django and Pinax. Foundation infrastructure and team training. DevOps. Technology stack and approaches: Python, JavaScript, PHP, Bash, Drupal, Django, Pinax, Redmine, Trac, Debian, etc.

Jan 2004 - Oct 2009 - Zakrevskyi Entrepreneur. Web-development using PHP, Python, JavaScript. Development and maintenance of an industrial business portal. Technology stack and approaches: Python, JavaScript, PHP, Bash, Django, PostgreSQL, MySQL, Dojo, jQuery, Zend Framework, Pinax, Debian, etc.