nickolay.laptev@gmail.com   https://laptev.io/

Nickolay Laptev

Education

2005-2010 Mary State Technical University, Russia, Master of Computer Science

Summary of qualifications

General skills:

- Languages: Java, Python, TypeScript, C#, Go, JavaScript, Groovy, Perl, VB.NET, Lisp, F#, Assembler, C, C++, PHP, Ruby.
- Web frameworks: Spring MVC, AngularJS, ASP.NET MVC, Apache Struts.
- IDE: Eclipse, IntelliJ Idea, NetBeans, MS Visual Studio 2003/2005/2008/2010/2012, Vim.
- Version control: Git, Mercurial, Subversion, Rational Team Concert, Team Foundation Server, Vault, Visual SourceSafe.
- DBMS: MS SQL Server 2000/2005/2008/2012, Oracle, DB2, Postgresql, MariaDB, MongoDB, Apache Jena, DynamoDB, Redshift, InfluxDB.
- DB tools: Spring Data, JPA, Hibernate, MyBatis, pgbench, sysbench.
- Messaging: Apache Kafka, JMS, IBM Websphere MQ, Apache ActiveMQ, RabbitMQ.
- Transactions: JTA, JBossTS (Narayana).
- Web services: RPC, SOAP, REST.
- Application servers: Apache Tomcat, JBoss, Websphere Liberty.
- Design platforms: OSGi, Eclipse Rich Client Platform, Eclipse Equinox, Netbeans platform.
- Unit-testing frameworks: JUnit, NUnit, JMockit, PITest, Arquillian.
- Logging frameworks: Graylog, Log4j, Logback.
- GUI: GDI/ GDI+, DirectX, OpenGL.
- DevOps/MLOps tools: Jenkins, Ansible, Terraform, CloudFormation, Team City, ElectricFlow, Bitbucket Pipelines, Azure Pipelines, TravisCI, GitHub Actions, Bamboo, Rational Team Concert, Sagemaker.
- Monitoring tools: New Relic, Zenoss, Grafana, Graphite, DataDog.
- Source code static analysers: FxCop, StyleCop, Klocwork, Sonar, FindBugs.
- Build and dependency management: Ant, Maven, Gradle.
- Other frameworks: Spring, Dropwizard, JCA (JBoss IronJacamar), Apache Camel, Netflix OSS (Eureka, Hystrix, EVCache), Elastic Stack.
- OSes: MacOS, Linux (Red Hat, Ubuntu, IBM z\OS).
- Cloud platforms and containers: AWS, Heroku, Azure, OpenShift, SAP Cloud Platform, Cloud Foundry, Docker, Kubernetes.
- Chatbots platform: Facebook Messenger, Telegram, Chatfuel, ManyChats, Zapier, Facebook Analytics, Dashbot.

Code examples

GitHub user https://github.com/laptevn

https://github.com/BetterWorldInternational/LOVECHAIN
I helped non profit organisation with the following:

- Introduced CI process
- Moved the project from Spark Framework to Spring Boot and removed many reinvented wheels
- Refactored code base to make it testable
- Increased code coverage from 0% to 60%

https://github.com/laptevn/invoice-manager
Small application that generates invoices every week to pay my taxes, data is collected from my bank using its API. Spring Boot application hosted in Heroku.

https://github.com/laptevn/statistics
Test project for N26 (European mobile bank) that I passed.

https://github.com/laptevn/jogging
Test project for Toptal (freelancing platform) that I passed. REST API with persistency, sophisticated filtering, authorisation, authentication and weather API used.

Certifications
- AWS Certified Solutions Architect.
- Oracle Certified Associate, Java SE 7 Programmer.
- Oracle Certified Professional, Java SE 7 Programmer.
- MongoDB Certified Developer.
- Machine Learning from Stanford University on Coursera.
- Project Management Orientation (PM54G) from IBM.
- Project Management Fundamentals (PM10G) from IBM.
- Big Data Fundamentals from IBM.
- Big Data Hadoop Fundamentals from IBM.
- Platform as a Service Academy graduate from Accenture.
- Business Development Manager from TM Forum.
- Frameworx Transformation Manager from TM Forum.
- Platform Development Manager from TM Forum.

Recommendations

Public talks
- Resume Driven Development at Coding Stuttgart meetup. Slides and recording.
- Java Certification at Russian Coding Day conference. Slides.

Work experience
Subsystem CTO / VP of TPM at Crossover (04/2022-now)

Activities:

1. Made the most important technical decisions in data driven way in child companies with a portfolio of hundreds of products (including Jive, FogBugz, Sococo, BiznessApps, Engine Yard, Kayako, CloudFix, AlphaSchool).
2. Technical due diligence during pre-acquisitions.
3. Architecture governance for all products.
4. Simplified overgrown products dramatically by concentrating on core value.
5. Saved millions with cost optimisations in AWS infrastructure practising FinOps.
6. Implemented PoCs, fitness functions and the most complex functionality.

Development environment: Python, TypeScript, Jupyter Notebook, AWS, LucidChart.

Senior Solutions Architect at <u>S7</u> (10/2021-04/2022)

Activities:

1. Extracted architecture vision from heads and visualised it for 7 products.
2. Recommended improvements for 7 products.
3. Designed notifications platform from scratch that sends messages to 12+ millions of passengers.
4. Technical guidance for all products in the company and child companies.
5. Organised and lead learning activities to fill gaps in architecture skills in development teams.
6. Assisted with root cause analysis for the most sophisticated issues happening in the company daily.

Projects:

Identifying as-is architecture in all products (10/2021-04/2022)
My goal was to identify as-is architecture from heads and outdated notes, and provide recommendations to it.
Development environment: Kubernetes, Kafka, Apache Airflow, Java, PostgreSQL, Redis, Hazelcast, MongoDB, LucidChart.

Universal communication platform (11/2021-04/2022)
My goal was to design a platform to manage distribution of marketing and service messages via different channels (web and mobile push, email, SMS, Wallet, internal channels) from scratch and provide architecture governance during its delivery.
Development environment: Kubernetes, Kafka, Java, PostgreSQL, Redis, RedisGraph, ElasticSearch, LucidChart.

Solutions Architect at <u>EPAM</u> (02/2020-10/2021)

Activities:

1. Created technical proposals for several tenders that will bring millions of dollars and loyal clients to EPAM.
2. Guided novice Delivery Manager through all project duration.
3. Formed a team and processes around start-up approach of delivering the value.

4.   Lead interviews with business clients.
5.   Got clients interested in more opportunities than they thought initially, that lead to bigger EPAM revenue.
6.   Designed the system deployable to both On Premise and AWS, that will decrease the price of genetic analysis by 30%.
7.   Brought not compilable prototype sources into fully working application.
8.   Created semi-automatic deployment process for the prototype in AWS using infrastructure as a code approach and immutable resources.
9.   Created CI process basing on pipeline as a code approach.
10. Introduced automated performance testing process for the prototype to follow data driven approach for development.
11. Introduced logs aggregation in AWS CloudWatch.
12. Introduced metrics to measure business use cases.
13. Tuned performance of ElasticSearch under high load with huge data volume.
14. Managed costs of using AWS resources.
15. Technical leadership of cross-functional teams of 10+ people including Devs, DevOps, QA, delivery manager and business analysts.
16. Advocated for effectiveness, transparency and integrity.
17. Identified performance bottlenecks in a distributed system consisting of SPA and 50+ integrations with external services.
18. Recommended enhancements to improve performance in 50 times.
19. Defined data management strategy to meet needs of multitenant product basing on results of DB benchmarks.
20. Designed system provisioning in both US and China AWS regions.
21. Designed Machine Learning inference process happening 100% Serverlessly in reactive way.

Projects:

OneSourceTax for **Thomson Reuters** (06/2021-08/2021)

SaaS product experienced problems with performance and stability. My goal was to assess these problems, recommend solutions, drive improvements implementation, define data management strategy.

Development environment: AWS (Lambda, EC2, S3, RDS, PostgreSQL, SQS, SNS, StepFunctions), DataDog, LucidChart, Go, pgbench, sysbench.

A set of products around data pipeline for Syncron (05/2021-05/2021)

Perform assessment of several products and their development approaches.

Development environment: AWS (Lambda, SQS, SNS, EventBridge, DynamoDB, Glue), LucidChart, ETL.

Machine Learning engine for Onit (03/2021-04/2021)

Develop a machine learning engine, responsible for tagging invoices. My goal was to create a design of the engine and pipelines for models training.

Development environment: AWS (Lambda, SQS, S3, Sagemaker, EventBridge), LucidChart, MLOps, Python.

Logs aggregation for BluJay (12/2020-02/2021)

Improve performance of a platform by replacing hand-made logs aggregation system with 3rd party one.

Development environment: LucidChart, Java, AWS, On Premise, Oracle, Elastic Stack (Filebeat, Metricbeat, Logstash, ElasticSearch, Kibana), Docker, Ansible, Service Mesh.

AdInsure for <u>Sogaz</u> (09/2020)

Creation of a commercial proposal for a tender for insurance company backed by Gazprom. I defined scope of work and estimated implementation effort for it. The client liked it and moved further with EPAM.

AdInsure is a set of additions to Adacta product including custom CD pipeline, constructor of insurance products, custom reporting and custom identity management.

Development environment: Adacta, LucidChart.

GAC for <u>Inditex</u> (07/2020-08/2020)

Inditex (owner of Zara, Bershka, Pull&Bear, Stradivarius) needed a system to distribute clothes between its stores. MVP version of this system was developed initially by another team. My goal was to bring that MVP to production.

Development environment: LucidChart, Java, OpenShift, MongoDB, JMeter, InfluxDB, Grafana, Graylog.

OneFront for <u>Allianz</u> (06/2020)

Creation of a commercial proposal for a tender. I created a high level architecture of OneFront and estimated implementation effort for it. The client liked it and moved further with EPAM.

OneFront is an attempt to combine individual services of whole insurance business into one structure.

Development environment: Private Cloud, LucidChart.

ODIN for <u>PerkinElmer</u> (02/2020-05/2020)

My goal was to create a prototype and create a design of a system that handles genomic variants and analyses.

Roughly this system is more like NoSQL database for bio informatics needs. Huge data volumes, real time updates and effective real time collaboration of all users were critical parts of this system.

Development environment: AWS (EC2, RDS, ElasticSearch, CloudWatch, S3, CloudFormation), Terraform, Java, LucidChart, Gatling, GitLab, Jenkins.

Technical Consultant at <u>laptev.io</u> (11/2016--now)

Activities:

I solve hard technical and architectural problems and train teams to solve them.

Projects:

Migration to AWS at <u>Kick</u> (09/2021-11/2021)

1. Created AWS native architecture.
2. Designed fully automated CI/CD processes.
3. Created IaC scripts to provision all infrastructure.
4. Setup observability with logging and metrics.

Development environment: Heroku, AWS (Lambda, ECS, ECR, EC2, Fargate, S3, RDS, PostgreSQL, EventBridge, SystemsManager, CloudWatch, ELB), LucidChart, GitHub Actions, Terraform.

Code Reviewer at <u>Geektastic</u> (05/2019-04/2020)

Reviewing code challenges to help the world's top tech companies to hire the best developers. Part-time job.

Core services at <u>N26</u> (06/2018-08/2018)

1. Identified organisational and technical bottlenecks and created a plan of improvements.
2. Removed redundancy from development process.
3. Introduced measuring performance of a team and individual contributors.
4. Fixed broken Continuous Delivery pipeline for several services.
5. Provided technical guidance for introducing support of US market.

Development environment: AWS, Docker, Java, Spring, Netflix OSS, Jenkins, Microservices.

Several projects at <u>Gigster</u> (11/2016-05/2017)

Implemented several projects for world top companies. Other details are protected by NDA.

UI Services for <u>Upwork</u> (11/2016-01/2017)

Designed and implemented a core part of A/B testing system for Upwork platform.

Development environment: Java, Dropwizard, AWS(EC2, DynamoDB, Redshift), Netflix OSS (Eureka, Hystrix, EVCache), Docker, Elastic Kibana, Grafana, REST, JUnit, PITest, Intellij Idea, Microservices.

Software Architect/Head of Engineering at <u>Jacq</u> (06/2019-01/2020)

Activities:

1. Designed all components of the platform.
2. Made existing system scalable, moved it from MVP state to production ready.
3. Brought structure to source code, made it extensible and testable.
4. Increased code coverage from 0 to 80%. Introduced unit and integration testing.
5. Organised work of several cross-functional (Developers and Data Scientists with ML/CV background) and distributed teams.
6. Guided Data Scientists to find the best approach to train ML models using our own and Cloud resources.
7. Introduced measuring performance of a team and individual contributors.
8. Trained teams to be more effective and improve performance.

Projects:

Spotsize (06/2019-01/2020)

The product uses front cameras of new model of iPhones to identify the size of a foot and recommend best matching shoe models. It uses Depths Maps, Machine Learning and Computer Vision.
Development environment: SAP Cloud Platform, Cloud Foundry, Java, Spring, Netflix OSS, Elastic Stack, Bitbucket Pipelines, Microservices.

Cross Products Software Architect at Accenture (07/2018-05/2019)

Activities:

1. Created a plan to solve quality issues in one SaaS product including creation of standards and acceptance criteria.
2. Lead an acceptance of the plan from stakeholders, provided constant assistance during plan implementation.
3. Acted as a technical expert in that product.
4. Acted as a security expert in all products.
5. Migrated Jenkins based CI builds for a core project to CD pipeline including cleaning ineffective solutions and adapting to new project requirements.

Projects:

Human Capital Management (07/2018-05/2019)

A set of products in HR field based on SAP SuccessFactors.
Development environment: SAP Cloud Platform, Cloud Foundry, Java, Jenkins, Docker.

Java Software Engineering Manager at Crossover (03/2018-06/2018)

Activities:

1. Lead a team of 15 people including 3 technical leads, 7 senior and 5 middle developers.
2. Defined all working processes for the product basing on automation of everything.
3. Performed 80+ hiring interviews.
4. Worked remotely.

Projects:

Loyalty and Campaign Management (03/2018-06/2018)

We started acquiring TecnoTree company and set an aggressive goal to migrate all its products and processes to our side in 1 quarter.
I lead a migration of "Loyalty and Campaign Management" product. An acquisition was postponed along with all migration activity.

Development environment: SmartSheet, BetterWorks, Jira, Confluence.

Java Chief Software Architect at Crossover (02/2017-03/2018)

Activities:

1. Lead teams of 3-10 software engineers, DevOps and QAs.
2. Designed and implemented synthetic monitoring solution from scratch.
3. Standardised Continuous Integration and Delivery processes for hundreds of products and teams.
4. Fully automated product deployment and environments provisioning for it.
5. Implemented the most complex and critical tasks for several projects. Customers had been waiting for 2+ years for completion of some of them.
6. Organised delivery process from resource and product perspective for lack of resource and product management for several projects.
7. Guarded high technical quality in products.
8. Created a blueprint for market new system that combines chatbot builders and payments platform. Estimated required costs.
9. Investigated performance and availability issues for Crossover platform and created a plan for improvements.
10. Worked remotely.

Projects:

Crossover (02/2018-03/2018)
Our client started experiencing performance and availability problems after introducing a new service. My role was to identify root causes of problems, propose solutions and create plans how to deliver required changes.
Along with producing main deliverables I exposed other problems they had and proposed solutions. VP of this company was happy with results and suggested to help with another project on a position of Software Engineering Manager, that I accepted.
Development environment: New Relic, Elastic Stack, AWS(EC2, S3, RDS), Docker, JMeter.

Digital Creative (01/2018-02/2018)
Our client came to us with an idea of integration of bot builders and payments systems into a single platform. I created a blueprint for the platform. The client was happy with prepared plans and made an order for platform implementation by us.
Development environment: Facebook Messenger, Chatfuel, ManyChats, Zapier, Facebook Analytics, Dashbot.

Jive Core (10/2017-12/2017)
Core part of Jive Software had a release scheduled that required a zero downtime for an upgrade. I drove this release from the first day of team formation until delivering the release to customers.
Development environment: Java, Spring, Apache Struts, JUnit, Postgresql, Apache Kafka, Jenkins, Docker, Maven, Intellij Idea.

CI Standardization and Continuous Delivery (05/2017-10/2017)

My team was responsible for implementation of Continuous Delivery process for all products in the company. I provided a technical leadership for the team of 10+ people and implemented the process for several products. Implementation of CD process included the following iterations:

- Standardization of CI builds within the company.
- Deployment automation.
- Environment provisioning automation.
- Defining delivery process

Development environment: Ansible, TeamCity, Docker, Maven, Gradle, AWS(EC2, S3, ECR, RDS), Nexus, Flyway, ElectricFlow.

CodeServer Monitoring (02/2017-04/2017)

Synthetic monitoring solution for a big enterprise CodeServer application. The solution runs customisable list of acceptance tests, monitors different states of monitored application and displays fancy UI with collected data.

Development environment: Java, Spring Boot, AWS(EC2), Docker, Graylog, REST, JUnit, Gradle, Jenkins, Intellij Idea, Microservices.

Tech Lead at IBM (07/2015-09/2016)

Activities:

1. Technical guidance of contractors.
2. Increased code coverage from 0 to 80%, introduced integration testing.
3. Redesigned core part of a system to make it more testable, extensible and maintainable.
4. Made the system consistent and removed concurrency issues.
5. Improved a performance of the most popular use cases in 3 times.
6. Final vote on choosing technical approaches.

Projects:

Rational Software Architect Design Manager (07/2015-09/2016)

Collaborative software design and development platform. With Rational Software Architect Design Manager global teams can store, share and manage designs and models in a central location, so they can closely collaborate with stakeholders to successfully meet requirements.
The product contains of a server and a client. The server is based on a set of REST web services. The client is Eclipse RCP application.

Development environment: IBM Java (J9), Eclipse IDE, Eclipse RCP, Eclipse Equinox, OSGI, RTC, REST, Apache Jena, JUnit.

Team Lead at TransCity (03/2015-07/2015)

Activities:

1. Lead a team of 7 people including software engineers, QA, business analysts and Ops.
2. Final vote on choosing technical and organisational approaches.
3. Provided a plan for a replacement of proprietary software and hardware stacks based on real measurements that lead to saving of millions for Russia.
4. Designed and implemented a system for producing personal ID cards for Russian citizens that reduced producing times in 4 times and saved millions spent on redundant expenses for ministries.
5. Built a team and a relationship with a customer side from scratch.
6. The customer was happy with end result and wanted to hire me to its own projects.

Projects:

Russian citizen ID card (03/2015-07/2015)
Federal migration service of Russian Federation stated a new form of personal ID card for Russian citizens. Development of backend software for such a card is committed to our team.
Development environment: OpenJDK, Postgresql, Maven, Apache Tomcat, Apache Camel, JAX-WS, Intellij Idea, Linux (Ubuntu), Microservices.

Replace proprietary software with open source one (03/2015-07/2015)
Backend of foreign passport maintenance system used some proprietary technologies. Due to political situation such technologies were under review. Project goal was providing test system emulating a real system under natural load.
3 sets of open source technologies were considered as a replacement of proprietary stack.
The major part of the project was a load testing of the system used these sets.
Development environment: Java, Spring, JPA (Hibernate), JTA (JBossTS - Narayana), JCA (JBoss IronJacamar), IBM DB2, IBM Websphere MQ, Postgresql, Apache ActiveMQ, MariaDB, RabbitMQ, Maven, Apache Tomcat, Intellij Idea, Linux (Ubuntu, IBM z\OS).

Team Lead at <u>ACI Worldwide</u> (01/2013-03/2015)

Activities:

1. Lead several teams of 3 software engineers and QAs.
2. Final vote on choosing technical and organisational approaches.
3. Implemented core parts of payments framework that is used by top 60 banks in the world.
4. Created a system for automated functional testing of online banking that made hundreds of manual QAs redundant.
5. Lead migration from .Net to Java stack for office employees including organising trainings and workshops.
6. Interviewed core people for a new office.

Projects:

ACI Universal Payments Framework (05/2013-03/2015)
Universal Payments Framework (UPF) is framework for managing payments that contains several complex sub systems handling a numerous of money transfer protocols (for each payment sys-

tem), mission critical application server with sophisticated services management (UP Hub) and much more hot things. It's a core part of entire ACI payment system.

Development environment: Java, Perl, Groovy, Oracle, Maven, Sonar, Bamboo, JUnit, JMockit, Jira, Intellij Idea IDE, Eclipse IDE, Netbeans IDE, Linux (Red Hat).

Corporate banking/Online banking (01/2013-05/2013)

ACI had a big problem having manual functional testing with hundreds of QA engineers and a very poor automatic testing on several projects. This project was one of the small number of pilot projects aimed to resolve this problem.

We implemented automatic functional testing system as a result. This pilot project was successful and was used as a base for all other automatic functional testing systems being developed in our company. Training materials helped to train a lot of QA engineers.

Development environment: Java, Selenium, Jira, Eclipse IDE.

Team Lead at TeamForce (09/2008-01/2013)

Activities:

1. Lead a team of 3-6 software engineers.
2. Designed and implemented core parts of products.
3. Created several market new products from scratch.
4. Interviewed new engineers including final decision on hiring.
5. Final vote on choosing technical and organisational approaches.
6. 2 our products (ApexSQL Complete and Refactor) won 2 silver medals "Windows IT Pro Community Choice Award Winner 2013".
7. Won "ComponentSource Bestselling Publisher Award" 4 times every year 2009-2012.
8. As a result of outstanding work and strong commitment to the quality and constant improvement our TeamForce company was acquired by ACI Worldwide having preserved our culture and working process. Money got from this acquisition was spread between ten developers and managers made the most valuable contribution to our company success and I was one of these guys.

Projects:

ApexSQL Complete

A ton of free SQL Server productivity features for SSMS and Visual Studio including SQL auto-complete.

Presents Visual Assist and JetBrains Resharper analog but for TSQL language.

There is no direct competitors assuming the huge list of product features. Native SSMS autocompletion is far beyond too.

Development environment: MS VS, MS SSMS, TSQL, C#, NUnit, Team Foundation Server, Git, Subversion, FxCop, StyleCop.

ApexSQL Doc

Document SQL Server databases and SSIS packages.

Humanly-readable SQL databases exported to CHM, HTML, Word, and PDF formats. Generating relationship diagrams. A high performance SQL documentation engine that can easily be scheduled to run unattended.

Development environment: MS VS, MS SSMS, TSQL, C#, NUnit, Team Foundation Server, Git, Subversion, FxCop, StyleCop.

ApexSQL Source Control

Universal interface (API) for the following version control systems: Apache Subversion, SourceGear Vault, Microsoft Team Foundation Server and Microsoft Visual Source Safe.

There is absolutely no competitors assuming a functional set and its high performance. API is distributed as both a standalone library and as a part of separate ApexSQL products (it provides SQL DB versioning there). In ApexSQL products it's used for collaboration with DB objects (DDL and DML scripts).

This project was started as my diploma project and had deserved the highest grade.

Development environment: MS VS, C#, Subversion, Vault, Team Foundation Server, VSS, Git, NUnit, FxCop, StyleCop.

ApexSQL SSIS Compare

An engine for loading and comparing MSSQL server SSIS packages. There were no analogs of this tool but now is no longer available for sale.

Development environment: MS VS, MS SSMS, TSQL, C#, NUnit, Team Foundation Server, Git, Subversion, FxCop, StyleCop.

ApexSQL Log

A SQL transaction log reader for forensic auditing and rollback of malicious or inadvertent changes.

There is absolutely no competitors. Most interesting features include the following:

- Audit data, schema, and permission changes on SQL Server databases
- Rollback database changes and recover missing or damaged data
- Forensically mine transactions to determine who, changed what, and when

Development environment: MSVS, MSSQL Server, TSQL, C#, NUnit, Team Foundation Server, FxCop, StyleCop.

ApexSQL Refactor

An engine for formatting and refactoring SQL code in SSMS and Visual Studio.

This engine includes a huge list of refactorings and formatting styles that no other competitor (including SSMS itself) provides - nearly 200 formatting options and 11 code refactors.

Development environment: MS VS, MS SSMS, TSQL, C#, NUnit, Team Foundation Server, FxCop, StyleCop.

ApexSQL Script

Script SQL objects and data into scripts and deployment packages.

The only competitor is Microsoft SMO API used in SSMS. But our Script tool is 200-600% faster having pretty similar RAM consumptions at the same time. Also its features list is much longer than Microsoft SMO API one.

Development environment: MS VS, MS SSMS, TSQL, C#, NUnit, Team Foundation Server, FxCop, StyleCop.

Languages

Russian (native), English (fluent)

Personal information

Problem solver. Close to technology and hands-on.

Worked as QA, developer, DevOps, Team Lead, Tech Lead, Resource Manager, Project Manager, Product Manager, System Architect, Solutions Architect, VP of TPM and CTO.
Worked in telecommunications, banking, bioinformatics, insurance, retail and state business fields.
My expertise is in web, cloud development, DevOps but I also worked heavily in desktop and frontend development, Machine Learning, chatbots, with persistency and on network level, created mobile games, games with computer graphics, programmed microcontrollers etc.

The way I work is based on setting goals, achieving them in a measurable way and constantly improving approaches I use along the way.