

# Pavel Fatin (mail@pavelfatin.com)



## Goal

Senior Scala / Java developer, full-stack developer, consultant  
Munich, Germany or remote

## About

- 15+ years of experience as a full-stack developer in diverse projects
- 10+ years of practical experience in JVM, Java & Scala
- Experience of working in open source projects
- Self-motivated, self-directed, proven ability to work autonomously
- Deep thinker, excellent problem solving skills, attention to detail
- Strong understanding of design principles and design patterns
- Polyglot programmer, comprehension of both OO and FP paradigms
- Lover of well-architected, elegant and testable code
- Good knowledge of Linux (networking, security, containers)
- Understanding of user experience design and HCI
- Practical skills in analog and digital electronics
- Really passionate about technology and programming
- Great written and spoken English skills
- Experience with agile software development

## Qualifications

**Methodologies** OOAD, agile software development, extreme programming, user-centered design

**Techniques** requirements analysis, continuous integration, refactoring, unit testing, acceptance testing, TDD, BDD, network programming, database programming, ORM, reverse engineering, HCI design

**Paradigms** OOP, functional programming, reactive programming, AOP, concurrent programming, dynamic languages, design patterns, DSLs

**Languages** Scala, Java 8, Groovy, C/C++, Ruby, PHP, JavaScript, Clojure, Haskell, R

**Technologies** Java SE, AWT, Swing, JNA, Java EE, SQL, JDBC, Hibernate, Slick, XML, HTML5, CSS3, Rails, Grails, Play, Regex, JUnit, Akka, OpenCL, UML

**Tools** IDEA / Eclipse / Netbeans / Vim / Emacs, Git / Subversion, Ant / Maven / Gradle / SBT, YouTrack / JIRA, TeamCity / Jenkins, YourKit / JProfiler / JVisualVM, Linux, Apache, Tomcat, JBoss, MySQL, PostgreSQL

## Profile

**Projects** [pavelfatin.com/projects](http://pavelfatin.com/projects)

**Articles** [pavelfatin.com/articles](http://pavelfatin.com/articles)

**GitHub** [github.com/pavelfatin](https://github.com/pavelfatin)

**Twitter** [twitter.com/pavelfatin](https://twitter.com/pavelfatin)



## Experience

### JetBrains (Munich, Germany)

#### Scala plugin for IntelliJ IDEA (2009 - now)

Plugin for [Scala](#) language support in [IntelliJ IDEA](#) IDE.

- Introduced and implemented [type-aware highlighting](#) (coined the term).
- Devised and implemented [type info](#) action (later adopted by the IDEA platform).
- Designed and implemented Scala [compile server](#) (later replicated in Kotlin).
- Envisioned and implemented [method signature inspections](#) (embraced by Scala community).
- Designed a comprehensive set of practical [Scala collection inspections](#).
- Invented and realized [ahead-of-time completion](#) (coined the term, later adopted by Kotlin).
- Designed and implemented [recursion type highlighting](#).
- Drafted and developed [SBT project support](#) (as well as for Maven and Gradle).
- Architected and implemented [out-of-process compiler](#), integrated SBT incremental compiler.
- Implemented [import handling](#) on copy-paste (including Java-to-Scala conversion).
- Devised and implemented [string format conversion](#) (later replicated in IDEA).
- Engineered instant & interactive [Scala Worksheet](#) architecture.
- Made [ScalaJS support](#) possible by devising "source" modules type.
- Introduced idiomatic Scala wrappers for IDEA API (extractors, quasiquotes, etc).
- Redesigned configuration UI, introduced Scala SDKs.
- Started [public nightly builds](#), created the infrastructure.
- Launched and configured the [project blog](#) and authored many [posts](#).
- Performed code reviews, advised on programming methodologies and paradigms.
- Communicated with users and contributors (blog, forum, tracker, email, etc).
- Presented the project at international conferences ([example](#)).

Scala, Java SE, Swing, ScalaTest, JUnit, Play, Lift, Ant, Maven, Gradle, SBT

#### IntelliJ IDEA (2009 - now)

Integrated development environment (IDE) for creating computer software.

- Engineered and implemented [zero-latency typing](#) (coined the term), conducted the research.
- Adapted IDEA platform for [ARM architecture](#), run [IDEA on Raspberry Pi](#).
- Improved file metadata access performance (including indexing).

Java SE, AWT, Swing, JNA, Linux

#### Exception Analyzer (2009 - now)

Multi-tier system for reporting, analyzing, clustering and managing error reports for all IDEA-family products. Provides access via IDE plugin, web browser or SOAP protocol. The system interacts with many external services ([TeamCity](#), LDAP, etc).

- Redesigned the system to increase performance and scalability.
- Created an improved user interface.
- Introduced unit testing and issue tracking.
- Extended, refactored and supported the system.

Scala, Java SE, Ruby, SQL, XML, HTTP, SOAP, Regex, Hibernate, JDBC, Swing, JUnit, Ant, Rails, HTML, CSS, Tomcat, MySQL, FreeMarker, Axis, Linux

## **Municipal City Hospital No. 1 (Novokuznetsk, Russia)**

### **Hospital Information System (2005 - 2009)**

Software for managing administrative and clinical aspects of a hospital. Build on a dedicated framework with custom GUI controls, ORM persistence and a report engine.

- Organized the development process.
- Designed a system architecture.
- Created multiple client and server components.
- Built tools for processing statistical data.
- Provided acceptance tests and documentation.
- Advised on software technologies.
- Tutored newcomers in programming practices.

Java EE / SE, Swing, Scala, Groovy, Regex, XML, SQL, JDBC, Hibernate, JUnit, jMock, JasperReports, JBoss, Tomcat, PostgreSQL, Ant

## **Galleon LLC (Novokuznetsk, Russia)**

### **Aether SCADA (2008 - 2009) \*contract**

Java-based SCADA software for ventilating equipment. Provides device mimics, event logs, alarms, schedules, data history and complex graphs. Has a built-in support for Modbus protocol. Integrates both with own PLCs and third-party equipment ([Swegon](#) GOLDs). Used in 7 business centres (up to 140 devices per building).

- Proposed the idea and a draft.
- Performed requirements analysis.
- Developed user interface.
- Designed application architecture.
- Done programming and testing.
- Provided documentation, trainings and support.

Java SE, Swing(X), XML, JDBC, JavaDB, JUnit, JFreeChart, ProGuard, Ant, Modbus

### **SCADA programming (2007 - 2008) \*contract**

[Master SCADA](#) project with custom FBD blocks and GUI controls for remote dispatching of ventilating equipment. Software manages 4-level building with more than 120 PLC devices of 7 types, provides detailed floor plans, device mimics, logs, graphs and schedules.

- Built custom FBD and GUI controls.
- Developed UI, including floor plans and device mimics.
- Created SCADA project.
- Designed RS485 network structure and wiring.
- Defined PLCs communication protocols.
- Done project commissioning.
- Provided documentation, trainings and consulting.

SCADA, FBD, .Net, C#, ActiveX, OPC, Modbus

### **PLC programming (2006 - 2008) \*contract**

Hardware and software for ventilating equipment (air handling units, chillers, curtains, fans, dumpers, etc.) with **Segnetics** SMH and Pixel PLCs. Mission-critical regulators with menus, logs, schedule, networked sensors/actuators and remote dispatching. Used in 5 business centres.

- Negotiated with customers, manufacturers and suppliers.
- Performed requirements analysis.
- Outlined a blueprint and schedules.
- Designed electrical schemes.
- Developed software for PLCs.
- Managed the assembling.
- Done acceptance testing.
- Provided documentation, trainings and consulting.

PLC, FBD, Modbus, Ruby

### **1C programming (2004 - 2005)**

Custom platform configuration for management accounts. Built from scratch. Includes projects management, inventory accounting, financial accounting and consolidated reports.

- Communicated with company employees and owners.
- Performed requirements analysis.
- Proposed the idea and a draft.
- Designed a domain model, GUI and reports.
- Done programming and testing.
- Provided documentation, trainings and consulting.

1C, UML

### **Novosoft (Novosibirsk, Russia)**

#### **Mobile Web Accelerator (2002 - 2003) \*contract**

Client-server traffic compression system for mobile devices with custom compression algorithm.

- Communicated with customers.
- Developed the server part.
- Implemented compression algorithm in Java and C++.
- Participated in testing and commissioning.

Java SE, AWT, C++, MFC, HTTP(S), TCP/IP

#### **Lightweight JMS (2000 - 2002) \*contract**

Fast **JMS** implementation with native database.

- Communicated with specifier.
- Developed the server part.
- Documented the code.
- Designed tests.
- Participated in commissioning.

JavaSE, JMS, JNI, C/C++