# George Leontiev

Functional junkie

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# Education

2004-2008 Bachelor, National Taras Shevchenko University of Kyiv, Kyiv, Faculty of cybernetics.

chair of theory and technology of programming

2008–2010 Master, National University of "Kyiv-Mohyla Academy", Kyiv, Computer science faculty.

chair of the automated systems software development

# Master thesis

title Design Patterns in Object Oriented - Functional hybrid programming languages

supervisors Volodymyr Boublik

description The work aims at finding and establishing well known/behaved abstractions known as "Design Patterns" in the world of hybrid OO-Functional Programming, with examples in Scala.

# **Experience**

### Vocational

01.2013- **Backend Developer**, *deltamentod GmbH*, Berlin.

present Working on the backend for recommendation service.

Developing a recommendation system for improving online ads/ad compaigns, using machine learning algorithms in python.

Tech: python, numpy, pandas, scikit-learn, pylab, ipython notebook

- 04.2011 **Scala developer**, *The New Motion*, Kyiv, Amsterdam.
- 12.2012 I was the second person, joining the client's remote dev team (9 people now). Had a chance to work on/initiate/lead all the projects, company did. Tech: scala, akka, scalaz, scalaxb, liftweb, dispatch, protobuf, mysql, cassandra, specs2, scalacheck, js, backbone.js, underscore.js, rabbitmq. Projects:
  - Car Sharing Enabling companies share electric cars among their employees.
  - Car Online Putting the electric vehicle online. That is, get the information like accumulator charge state, GPS coordinates, etc. from the car to our servers, analyze, show that to the driver.
  - Charge Network Backend to operate charge points across Netherlands. This is a place, where charge points connect to, and get managing commands (like authorizing users to perform a charging session based on chargepass, rebooting the point, etc.) and software updates from.
  - LoveToLoad User portal for the chargenetwork, where users can get details and statistics data on their chargepoints and chargecards.
  - Admin Portal Place, where network administrators manage the network through interfaces, provided by the chargenetwork.
  - Winterfell A hub to exchange chargepoints status notifications across multiple networks. For example, we give our chargepoints statuses to oplaadpalen.nl.
  - Bitlment An internal project, that processes chargesessions to generate billings.
  - MSP Internal CRM project.
- 02.2011 Android Developer, Ciklum, Kyiv.
- 04.2011 Development of the main app backend and frontend framework. Tech: java, android api's.

# 06.2010– Android Java/Automation Test Engineer $\rightarrow$ Android Developer $\rightarrow$ 02.2011 Senior Software Engineer, Cogniance inc., Kyiv.

- INQ Mobile: Development of the internal testing framework, unit and smoke tests for the platform in terms of that framework. Development of the backend for syncing facebook events with android calendar. Final product is INQ Cloud Touch device.
- Laszlo Systems: Development of the mobile app for laszlo webtop server solution.
- Buildabrand: Designing and implementing new relevant search architecture and algorithms.

Tech: robotium solo, android platform frameworks, android apps; lucene, spring, hibernate, wordnet.

# Opensource contributions

**scalaz**, *List of contributions*, An extension to the core Scala library for functional programming.

Contributed in various areas, including fixing FingerTree implementation, providing examples of using Isomorphisms, Writer monad, ST

**scalaz-contrib**, Interoperability libraries and additional data structures and instances for Scalaz.

Contriburing scalaz instances for 3rd-party projects

**spark**, Scala framework for iterative and interactive cluster computing. Helped migrate the project to scala 2.10

poi.scala, Apache poi dsl for scala.

Creator and maintainer of the project

roy-mode, Roy mode for emacs.

Creator and maintainer of the project

**typelevel-activator**, A project to get started and get comfortable with typelevel.scala stack.

Creator and maintainer of the project

# Tech skills

#### Scala • Core

- Lift Framework
- Akka (1.x, 2.0.x, 2.1)
- scalaz (6.x, 7.0.0)
- specs2, scalacheck
- sbt, maven
- Play2! framework
- spark
- spray

# **JS** • *jquery*

- backbone.js
- roy, contributed to the project's ecosystem (maven plugin, emacs mode)
- have interest in ray, as well as idris and agda js backends

#### **Java** • Enterprise

- Spring, Hibernate
- java is here only because I have some experience in it, I don't really want a job, where I'd have to code in it.

# Tools

system Arch linux + xmonad coding emacs

setup mainly consists of: evil-mode, scala2-mode ensime (with scala-mode), haskell-mode, nXML-mode, js2-mode, python-mode (with pep8 and pylint), org-mode, LATEX-mode, jabber.el and some self-made stuff for convenience

version git, mercurial controll

# **Talks**

Scalaz: Learn You Yet Another Real

Scala User Group Berlin-Brandenburg

An introductory talk about the high-level abstractions provided by scalaz. Demo: the IO monad.

World Gentle Haskell

funclub Funclub Berlin

A solution for the programming assignment, done in scala, with effect-controlling via scalaz

meetup solution in

scala

Scalaz 6.0.4 Scala User Group Ukraine

An introductory talk about utilising abstractions from scalaz, version 6.0.4

talk (in Russian)

# Interests

Math I am fascinated by different branches, but recently extremely interested in the category theory.

Haskell Initially started to ponder around it to become a better scala developer. As a result fell in love with its ideas and semantics.

Drums, bass Just learning guitar

# Things I do every day

- o state and prove theorems of formal constructivist logic (proof)
- learn cool new things