



Alexander Gryzlov

E-mail: alex.gryzlov@gmail.com
Website: <https://github.com/clayrat>
Phone: +34623344508

WORK EXPERIENCE

IMDEA Software

Jan 2020 — present

Research programmer

Proof engineer (team size: 4)

- * Fine-grained concurrent separation logic (proof engineering & maintenance)

Statebox

May 2018 — Mar 2020

Programmer

Idris/Purescript developer (team size: 6)

- * Computational category theory
- * Diagram visualization
- * Algebraic data serialization
- * State machines & Petri nets

Adform

Feb 2014 — Feb 2019

Senior Software Engineer

Scala developer (team size: 5)

- * Recommendation engine
- * Distributed data transformation pipelines (batch & streaming, automation & deployment)
- * Job scheduler backend and UI
- * Interactive graph visualizations

VIB Department of Plant Systems Biology @ UGent

Mar 2011 — Sep 2013

PhD student

Junior researcher in bioinformatics (team size: 1)

- * Parallel protein homology modelling pipeline
- * Modelling gene expression in flower development
- * Graph splitting utility for pathway prediction precision/recall measurement
- * Comparative genomics visualization pipeline

GlobalLogic

Dec 2010 — Mar 2011

Senior Software Engineer

Java developer (team size: 10)

- * Mobile device integration (XML feed processors)

Elilink

Feb 2007 — Dec 2010

Sustaining Engineer

Java developer, maintenance and technical customer service (team size: 30)

- * Application integration via web services
- * Clustering logic
- * UI code (web & thin client)
- * Application support & sustaining (UI, DB, core logic)

Exadel

May 2006 — Dec 2006

Software Engineer

Java developer (team size: 15)

- * Build automation
- * Object-relational mapping, backend
- * Install scripting

IBA

Sept 2004 — Sep 2005

Software Engineer

Code analyst, Java developer (team size: 40)

- * Code analysis
- * UI design
- * Application logic

SKILLS

Languages

Coq, Idris, Scala, PureScript, Java, Python, OCaml, MATLAB, Smalltalk

Distributed & Reactive

Flink, Monix, Spark, Akka, Hadoop, AWS (S3, EMR)

Data science

Spire, NumPy, Weka, Probabilistic programming, Computational Biology

Databases

Vertica, Aerospike, Redis, PostgreSQL, Cassandra, Hibernate, Oracle

UI

Pux, D3.js, JavaFX, Swing

Web

HTTP4S, Struts, Axis, Tomcat

Development tools

Visual Studio Code, IntelliJ IDEA, Git, SBT, Maven, SVN, Ant, ClearCase

Misc

LaTeX, GraphViz

OPEN SOURCE & COMMUNITY

Projects contributed to:

- * [Idris2](#) - A dependently typed language
- * [redtt](#) - A proof assistant for cartesian cubical type theory
- * [Droste](#) - A recursion scheme library for Scala
- * [TParsec](#) - Total parser combinators in Idris
- * [Idris-bi](#) - An Idris library for verified unbounded and bounded binary arithmetics
- * [monix-kafka](#) - Kafka connectors for the Monix concurrency framework
- * [desc-n-crunch](#) - Facilities for verified code derivation for Idris
- * [PureScript](#) - A strongly typed language compiling to JS
- * [Http4s](#) - A functional HTTP server-client frame work for Scala
- * [lzo-java](#) - An implementation of LZO (de)compressor in pure Java

Conference talks:

- * "Logic, machines & sequent calculus" @ f(by), Minsk, 2019
- * "Modal types for fun and profit" @ Scala Russia, Moscow, 2019

QUALIFICATIONS

Certificates:

Sun Certified Java Programmer (SCJP) 1.4

Courses:

Reliable Distributed Algorithms, Data Mining with Weka, Basic Statistics in R, Effective Oral Presentations, Introduction to Network Biology

EDUCATION

Diplom-Informatiker, Technical Informatics

Sep 2004 — Aug 2008

Universität Mannheim

Specialist in Computer Science & Applied Mathematics

Sep 2002 — Jul 2007

Belaruski Dziarzhauny Universitet

INTERESTS & HOBBIES

Distributed systems, algebra & category theory, type systems, natural languages, music, juggling