

# Alexander Chepurnoy 7<sup>th</sup> February 1984

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## Summary

### *A summary*

I am an experienced and passionate engineer and researcher. I have built many products while enjoying design, development and management processes. I tried many programming languages using current favourite one, Scala, since 2011. I love functional pro-

gramming, programming languages theory and CS knowledge in general.

Previously I worked on data harvesting and analysis tools. Now I am living in the blockchain world and willing to continue to be here for coming years. Also I love to have results of my work as open as possible to wider public.

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## Experience

### IOHK Research

#### Project Scorex Director/Researcher

Developing Scorex and doing a research on blockchains.

*Feb 2015 – now*

### Smart Contract

#### CoFounder/Backend Developer

SmartContract is building escrow schemes automatically executed based on public datafeeds. Contracts and their updates are being written into Nxt blockchain in clear-text or hashed form. Previously the team built Secure Assets Exchange, web layer on top of decentralized Nxt Assets Exchange with some additional functionality. I designed and develop backend with Scala, Akka, Spray for both products, releasing [NxtScala](#) open-source micro-framework on the way.

*Oct 2014 – Dec 2015*

### Nxt cryptocurrency

#### Core Developer

Nxt is a cryptocurrency built from scratch, delivering decentralized economy platform. I developed first integration tests, alias transfer, voting system, 2-phased transactions(multisig for Nxt). Also I made some amount of documentation and specifications, key users support.

*Apr 2014 – Apr 2015*

#### Consensus Research

Consensus Research is informal research micro-group made research on Nxt-like Proof-of-Stake algorithm properties by gathering statistics from simulations made with Haskell and Coq. All known attacks were modelled along with papers published online.

*Nov 2014 – Feb 2015*

### NovaShelf

#### Freelance Software Engineer

Stealth mode startup developed a new approach to clusterize documents based on Kohonen Self-Organized Maps. I built a distributed and decentralized system for crawling/processing/semantic clusterization of documents using Scala, Akka, Riak, OpenNLP, Lucene.

*Sep 2013 – Apr 2014*

### Domain Developers Fund

#### Freelance Software Engineer

Domain Developers Fund is the first public open-ended alternative investment fund exclusively invested in Internet domain names. It built a number of data collection and analysis tools using Scala, Java, Akka, MongoDB, Apache HttpClient, HtmlUnit, PlayFramework.

*Jun 2013 – Dec 2013*

### HedgeWallet

#### Freelance Software Engineer

Stealth mode startup to hold bitcoins and fiat currencies with auto hedging. I built user web application backend using Groovy, Grails, PostgreSQL

*Mar 2013 – Nov 2013*

### RankRust

#### Software Engineer, Tech Lead

Private company in Czech Republic made SEO tools and SEO-related data harvesting. I built a crawling system using Java, Nutch, Solr, PostgreSQL, RabbitMQ

*Feb 2011 – Feb 2013*

### DelightCash

#### Tech Lead, CTO

Adult affiliate program. I managed all the technical processes around it.

*May 2009 – Feb 2011*

## Exigen Services

### Software Engineer

Jun 2006 – Nov 2007

Those days Exigen Services was the biggest software development outsourcing company in Eastern Europe and CIS countries. The main project I worked on is professional all-in-one database security and auditing solution for Oracle, Sybase, DB2, MySQL and Microsoft SQL Server used by 3M, IBM, JP Morgan Chase, Hewlett-Packard, Shell, Sony and many others. Java, Struts, SQL code specific to most popular relational databases(MySQL, Oracle, MS SQL Server, Sybase, IBM DB2).

Please refer my [GitHub account](#) for contributions to open source made by me(Scala mostly). Also please refer to my [ODesk profile](#) for more jobs done along with recommendations.

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## Education

Information Technologies, Mechanics and Optics (ITMO) University

SAINT-PETERSBURG, RUSSIA

### Diploma of Specialist in Computer Systems

2001 – 2007

CS education providing both hardware and software knowledge with focus on embedded software development. A thesis was supervised by [professor Ojiganov](#) and named like “An Automated System for Recursive Code Scales Calculation”.

I also have unfinished PHD with few papers published in peer-reviewed journals(in Russian only to the moment) in the area of reactive software modelling with finite state machines.

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## Skills

**Technical specialties:** Languages: Scala, Java, Groovy. In past I used C, C++, PHP to earn money. Playing with Haskell, Coq, OCaml, Idris. Many other languages were used (from Pascal to NuSMV) but now forgotten. Databases: PostgreSQL, Riak, MongoDB, Hazelcast, FoundationDB. Frameworks: Akka, Spray, Slick, MapDb. Miscellaneous: git, LaTeX, Markdown.

**Natural languages:** Russian (*mother tongue*), English (*full professional proficiency*)

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