

Ing. Lukáš Sekerák

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Age: 24 years



14 years Programmer, Information Technology Devotee. Like bicycling too. Young, initiative man passionate for solving Computer science problems. Sometimes temperamental. My lifelong dream is to work for Google and I know that there is a lot of knowledge to learn. Recently working with Java and related technologies.

Seeking, learning, being open, inquisitive, self-critical...rules of my life.

Looking for position: Software engineer at Bratislava, full time, ASAP.

PERSONAL INFORMATION

Born: April 19th, 1992 in Sobrance (Slovakia)
Citizenship: Slovak
Marital status: single

WORK HISTORY

05. 2015 - 01. 2017

ASTON ITM Software engineer

Constructing customer area and new Data Warehouse for biggest gas and electricity supplier in Slovakia. Built from scratch. Several modules, multiple layers. Participating at architecture and API design. Team of 8 people.

Mostly implementing BE. Collaborated with suppliers as a technical consultant. Built security module. Built FE component library based on Knockout. Prepared FE build process. Configured Jenkins jobs, Maven build and release process. Presented and teaching importance of methodologies for company processes like a Git branching model. In parallel worked on another Android solution. Participating at every phase of features, from analyze to delivery, in short time periods.

Technology used: *in-house web framework, SOA, Knockout, node-js, Bower, Grunt, Maven, Gradle, ...*

06. 2013 - 10. 2013

CIIT.AT Software engineer, Team leader

Rebuilding and redesign project for Austria company. Responsible for delivery product and present result on each sprint. Working on FE and BE. Team of 3 people. Project was managed by Scrum methods, automated tests and automated building using TeamCity.

Technology used: *JPA (Hibernate), JSF, PrimeFaces, Tomcat, Maven*
Special technology used: Zxing, jCsv, opencsv, JMX

10. 2012 – 02. 2013

BLUEWEB Software developer

Worked on Wordpress custom solution for client at business area. I was responsible for writing requirements, analysis, design, and implementation.

07. 2011 – 01. 2012

DYNATECH
Tester, Developer

I was a part of tester's team. Later I implemented some features to e-shop product. At this position I learned a lot of Java EE stuff and behavior in business.

EDUCATION

06.2013 – 06.2015

**FAKULTA INFORMATIKY A INFORMAČNÝCH TECHNOLOGIÍ
(SLOVENSKÁ TECHNICKÁ UNIVERZITA), BRATISLAVA**
Master of Science in Computer Information Systems

06.2010 – 06.2013

**FAKULTA INFORMATIKY A INFORMAČNÝCH TECHNOLOGIÍ
(SLOVENSKÁ TECHNICKÁ UNIVERZITA), BRATISLAVA¹**
Bachelor of Science in Information Technology and Systems

01.2001 – 12.2001

GYMNÁZIUM SOBRANCE, SOBRANCE
Grammar school oriented at languages

QUALIFICATIONS²

Slovak language	native
English language	intermediate
Driver license	B

RESEARCH PROJECTS

05.2015

**VISUALIZING SOFTWARE DEVELOPER'S ACTIVITY LOGS
TO FACILITATE EXPLORATIVE ANALYSIS**
Expert paper type A

Result of my diploma thesis were published to IIT.SRC 2015 student research conference and later to Acta Polytechnica Hungarica magazine. Authors: *Dr. Alena Kovarova, prof. Pavol Navrat, Ing. Martin Konopka*

06.2014 – 06.2015

INTERACTIVE VISUALIZATION OF DEVELOPER'S ACTIONS³
DIPLOMA THESIS

I explored new visualization technique to view the development process from the perspective of particular steps of a developer. Visualization shows interesting statistics and behaviors of developer. I have tried to find answers on several development process hypothesis, for example if developer uses browser frequently, how often is the code rewritten etc. Diploma thesis was part of PerConIK project.

Technology used: *Graphs API, App engine, Datastore, Guava, Bower, Jersey, Jackson faster-xml, junit, Maven, Reflections, Objectify, jQuery, node-js, Java 8 streaming, jsonP, jGit*

06.2012 – 06.2013

INTERACTIVE VISUALIZATION OF INFORMATION NETWORK
BACHELOR thesis

Thesis was focused on solution and enhancement of interaction of information networks visualization. We focused on sparse graphs,

¹ List of passed subjects: <http://sekerak.info/fiit.txt>

² LinkedIn Profile: <http://lnkd.in/khzGkU>

³ <https://github.com/sekys/ivda>

generated from corpus documents (Enron Graph Corpus, Gorila) where we tried to find relations between entities in interactive user environment.

Requirements: *visualization for big data graphs, millions of vertices, tens millions of edges, savings graph out of main memory, fast loading and processing*

Used technologies: *non-blocking IO operations, memory-mapped files quad-tree structure, soft references, based on JUNG library, java apache collections*

PROJECTS

01.2014 – 05.2015

DETECTION OF OBJECTS IN SOCCER⁴ **COMPUTER VISION PROJECT**

Try detect objects (players, soccer ball, referees, goal keeper) in soccer match. Detect their position, movement and show picked object in ROI area.

Technology used: *Opencv, Mixture of Gaussians, Lucas-Kanade optical flow, segmentation by color*

09.2014 – 12.2014

INFORMATION RETRIEVAL

My task was to play with big data (FREEBASE dataset). I created simple service and user environment which tell user if two people could meet in their lives. It was based on birth and death date. Parsing, preprocessing, storing big data and speed were main valuations. I used 5 methods for processing, every method was evaluated.

Technology: *Map-reduce, Hadoop, Java Servlet, indexing with Apache Lucene, gZip and fast streams*

SOGAM

I was learning how to process signal, images and other media. Used subsampling and convolution filters. I created imitation of JPEG algorithm. We practiced lot of stuff on the 10 small projects, each in the Matlab.

06.2013 – 06.2014

CARLOS – TEAM PROJECT⁵

Architecture designer, Manager of writing documentation

Our aim was to create a prototype of an interactive system with a user-friendly interface for fellow travelers in a car designed for entertainment and educational purposes. The proposed system called Carlos changes a car side window into a transparent projection screen to supply the surrounding reality with the virtual information. The system creates an AR on a car window, due to which it can inform travelers about the immediate environment in real-time without the requirement of an Internet connection.

Description: *Scrum methods, team of 8 students*

Technology: *Redmine, C++, open-cv, open-gl, log4cpp, SQLite*

09.2013 – 12.2013

EXPLORING EXPERTS IN COMMUNITY

We (2 students) picked up DBLP data, then we start process of clustering to determine experts in community by citation references. Result was evaluated and written in unpublished paper. Technology: *Fuzzy k-Means, Apache Mahout, Gephi*

EXPERT DATABASE TECHNOLOGIES

We (3 students) prepared big data dataset (by crawling GitHub). We preprocessed (normalize) the data and tried store several millions of rows

⁴ <http://vgg.fiit.stuba.sk/2015-04/detection-of-objects-in-soccer/>

⁵ Published article about Carlos: <http://www.robime.it/tp-cup-2014-carlos-zabavny-system-pre-spolucestujucich-v-automobile>

in several databases to try special SQL dialects. Focus was on effective storing of data and aggregations like in a Data warehouses.

Technology: *PostgreSQL, Mongo DB, Oracle migration, Oracle database ETL, XE, PL/SQL, Oracle hints*

2013

ARTIFICIAL INTELLIGENCE PROJECTS

At this subject we made 4 projects to learn and work with AI algorithms like Genetic, Greedy algorithm, A*, Evolutionary algorithm and forwarding production system.

PRINCIPLES OF COMPUTER GRAPHICS, IMAGE PROCESSING

I created simple game, virtual slot machine. It used Open-GL as a base. Textures and animations were built on custom interpolation functions.

WEB PUBLISHING SUBJECT

Our task was to create document and transfer it to web-page and PDF format using XML, XSL, XSLT, XPath, Docbook.

2012 - 2013

SIP STATEFULL PROXY SERVER

Built primitive VOIP server from scratch. Goal was to try SS7 message exchange.

2011 - 2012

PRINCIPLES OF SOFTWARE ENGINEERING

Structural and behavioral UML diagrams. Tried every diagram. Modeling business processes at IBM RSA.

2010 – 2011

SEVERAL SUBJECTS

Working with databases, ORM - Doctrine, Hibernate. Trained OOP principles, data structures and algorithms...

COMMUNITY PROJECTS

04.2016 – 11.2016

NOTIFY SERIAL - HYBRID APP

Application notify user (subscriber) about new episodes.

Libraries created: *android-gcm, android-webapp⁶, build-templater, datastore-mapper, resteasy-quartz*

Technology used: *Google's App engine, Compute engine, Datastore, Cloud Messaging, Pub/Sub, Docker, google-fluentd, RestEasy, Jackson, Retrofit, ok-http client, Guice, Knockout, materialize-css, Gradle*

01.2015

CINEMA CITY - ANDROID APP⁷

I spent one week building app supporting multiple device platforms, which tell user movies program in Cinema city. User can register program to his Google's calendar.

Technology used: *Cloud, Bower, Node-js, Apache cordova, Android, Polymer*

2009 – 2010

FIRST PERSON SHOOTER

I tried to develop game. At the end I built very primitive FPS engine in 3D environment, with shades, effects, models at DirectX 9. Later transformed to directx11.

2006 – 2009

SEKY'S LEAGUE SYSTEM

Fully automatic league system built as web app, which looks for players and create lobby for them. Looks for enemies, control remote servers, and game rules. At the end of the game, statistics are atomically written and

⁶ <https://github.com/sekys/android-webapp>

⁷ <http://angelic-bazaar-819.appspot.com/>

shown. Built atop modified Counter-strike game engine. Created for Gecom::Lekos community.

Technology: *PHP, MySQL, Cron jobs, UNIX, Custom messaging protocol*

COUNTER STRIKE AMX PACKAGE OF PLUGINS

I prepared thousands of plugins for AMX MOD X, modification of counter strike game. Plugins were written in Pawn. Plugins were created for community of gamers, and actually used at my own server. Server had thousands visitor daily.

Technology: *C++, modding content of game, Unix, operate many servers*

COUNTER-STRIKE ADMINISTRATION CONTROL PANEL

Web application to help administrator control game server. With this tool administrators could manage users, privileges, configure server. Main goal was to support administrators in some way, when they need operate community game server.

Technology: *PHP, CSS, xHTML, MySQL*

2003 – 2006

WORDPRESS WEBSITES

For several years I was learning programming and building web pages for private subjects at business, lawyer's area and community. Most solutions were based on simple theme and Wordpress or a phpFusion CMS.

Personal data agreement

Súhlasím so správou, spracovaním a uchovaním mojich osobných údajov.. Poskytnutie údajov je dobrovoľné a bez dôsledkov s tým, že tieto údaje môžu byť spracované pre účely databázy uchádzačov o zamestnanie v zmysle Zák. č. 428/2002 Zb. o ochrane osobných údajov. Súhlas je daný na dobu neurčitú a podľa § 20 ods. 3 cit. zákona je ho možné kedykoľvek písomne odvolať.

Lukas Sekerak, 26.11.2014