

I love Lisp and Smalltalk! I enjoy Prolog as well

# Dr. Yuriy Tymchuk

## Senior Big Data Engineer



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I'm a software engineer / computer scientist and a hacker in general, who loves to solve challenging problems. Programming is the main activity that allows me to think, create, and bring my solutions to life.

## Achievements

**QualityAssistant:** My software-quality tool with a live feedback is integrated into the latest version of Pharo IDE. Expected usage: 2000 developers; 30 commercial companies; 20 universities.

**Live 3D visualizations video** [youtu.be/CuimMwuZiGA]: was used in a couple of dozen presentations for demonstrating the idea of live programming.

**StackOverflow:** Owner of (9 owners in total) and (3 owners in total) badges.

I'm honest, you may hate me for that.

## Employment

**Swisscom as Senior Big Data Engineer (+ Scrum Master)** Dec 2017 – ongoing

Development of an ETL application, a client-facing web app, maintenance of a CI/DC infrastructure. Assistance on various data sourcing and analysis projects. Refactoring of a few systems. Reduced the deployment time from one human/day to a few minutes with minimum interactions. Saved a few dying features and operational failures. Won an internal startup-ish competition aka Kickbox.

**Universität Bern as Research Assistant** Jan 2016 – Nov 2017

Research on embedding quality assistance into development workflow. Maintenance of the group's git server. I've invented a 3D visualization that allows detection of defects in software quality evolution. Teaching.

**Ukrainian Catholic University as Lecturer & Strategic Consultant** Jun 2015 – ongoing

Planning the first year for the bachelor computer science program and a long term strategy for the Faculty of Applied Sciences. Teaching advanced programming for the data science master students.

**Università della Svizzera Italiana as Doctoral Assistant** Oct 2013 – Dec 2015

Modeling of developer collaboration, based on the data mined from software repository. Research on code quality, development of ViDI code review tool and QualityAssistant static analyzer. Teaching.

**Innocode as Software engineer** Apr 2013 – Sep 2013

Pre-project research concerning a leanbusiness.no web-application. Development of Relink project in Ruby on Rails. Increased performance of the team by introducing a git-flow strategy development strategy.

<b>RMoD, Inria</b> as <i>Intern</i>	<i>Jan 2013 – Apr 2013</i>
Research on AST metamodels. Development of FAST: a generic metamodel and symbol resolution algorithm.	
<code>Pharo</code> <code>Moose</code> <code>PetitParser</code>	
<b>InterLogic</b> as <i>Software engineer</i>	<i>Aug 2012 – Jan 2013</i>
Development of a Java3D applet for ventilation system configuration with a backend in PHP and MySQL. I've developed a module in Scala which decreased the complexity by an order of magnitude in comparison with Java implementation.	
<code>Java</code> <code>Java3D</code> <code>Scala</code> <code>PHP</code> <code>MySQL</code>	
<b>Unikernel Team</b> ( <i>freelance</i> ) as <i>Founder/Leader</i>	<i>Mar 2010 – Aug 2012</i>
Different websites made from scratch. Usually online shops, sometimes web apps with rich frontend.	
<code>HTML/CSS</code> <code>PHP</code> <code>CakePHP</code> <code>JavaScript</code> <code>Raphaël JS</code> <code>MySQL</code>	
<b>UARNet ISP</b> as <i>Network Administrator</i>	<i>Feb 2009 – Jul 2012</i>
On call assistance, network administration, minor web development.	
<code>FreeBSD</code> <code>Linux</code> <code>iptables</code> <code>Oracle SQL</code> <code>PHP</code>	

## Education

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<b>Ph.D. in Computer Science</b> @ University of Lugano & University of Bern	<i>2013 – 2017</i>
Thesis topic: "Quality-Aware Tooling"	
<b>Master of Science</b> @ Ivan Franko National University of Lviv	<i>2012 – 2013</i>
Specialization in Informatics	
<b>Bachelor of Science</b> @ Ivan Franko National University of Lviv	<i>2008 – 2012</i>
Specialization in Informatics	

## Additional Training

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<b>Application Security</b> @ Swisscom	<i>2018</i>
<b>SAFe Scrum Master</b> @ Swisscom	<i>2018</i>
<b>Design Science &amp; Design Thinking</b> @ CUSO Winter School	<i>2017</i>
<b>Hands-on Data Analysis with R</b> @ CUSO Seminar	<i>2016</i>
<b>Taming Big Data</b> @ CUSO Winter School	<i>2016</i>

## Personal Information

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<b>Date of Birth:</b> Aug 11, 1991	<b>Marital Status:</b> Married
<b>Place of Birth:</b> Lviv, Ukraine	<b>Nº of children:</b> 1+
<b>Citizenship:</b> Ukrainian	<b>Swiss Residence Permit:</b> L

## Languages

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<b>English:</b> Proficient	<b>Polish (spoken):</b> Intermediate
<b>Ukrainian:</b> Native Speaker	<b>Russian (spoken):</b> Intermediate
<b>Italian:</b> Basic	

## Latest Tools, Frameworks, and Libraries

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⊕ Most of my project are available at my GitHub account [[github.com/Uko](https://github.com/Uko)]

[GitHubcello](#) [DeprecationAssistant](#) [MatchTool](#) [QualityAssistant](#) [Renraku](#) [ViDI](#) [Smalldromeda](#)

## Selected Publications

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⊕ Besides academic publishing I have a coding blog: [[code.yuriy.tymchuk.uk](http://code.yuriy.tymchuk.uk)]

**The False False Positives of Static Analysis**, Y. Tymchuk, In Proceedings of IWST'18  
(International Workshop on Smalltalk Technologies), 2018.

**JIT Feedback: What Experienced Developers Like About Static Analysis**, Y. Tymchuk,  
M. Ghafari, and O. Nierstrasz, In Proceedings of the 26th Conference on Program  
Comprehension, pp. 64–73, ACM, 2018.

**Walls, Pillars and Beams: A 3D Decomposition of Quality Anomalies**, Y. Tymchuk,  
L. Merino, M. Ghafari, and O. Nierstrasz, In Proceedings of VISSOFT'16 (4th IEEE Working  
Conference on Software Visualization), pp. 126–135, IEEE, 2016.

## Teaching

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**Ukrainian Catholic University** as *Lecturer*

Advanced Programming

*Fall 2016*

**Universität Bern** as *Teaching Assistant*

Compiler Construction

*Spring 2017*

Software Modeling and Analysis

*Fall 2016*

**Università della Svizzera Italiana** as *Teaching Assistant*

Bachelors Project

*Spring 2015*

Programming Fundamentals I

*Fall 2014, Fall 2015*

Software Atelier IV

*Spring 2014*

## Conference Assistance

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**[IWST] International Workshop on Smalltalk Technologies**

Program Committee

*2017*

**[VISSOFT] IEEE Working Conference on Software Visualization**

Program Committee - NIER and Tool Demo Track

*2016 – 2018*

Program Committee - Artifact Track

*2015*

**[GSoC] Google Summer of Code**

Pharo Consortium Organization Admin and Student's Mentor

*2017, 2019*

European Smalltalk Users Group Student's Mentor

*2015*

## Hobby

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Hiking picturesque or difficult mountains and reflecting amazing moments of this world with my camera ([https://500px.com/yuriy\\_tymchuk](https://500px.com/yuriy_tymchuk)). I own a 3D printer, and I design functional models that I print afterwards. Some time ago I was doing Kyokushinkai karate and I'm still following some of the principals I've learned there.

## Remarks for Nerds

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This cv is written in  $\text{\LaTeX}$ , versioned with git, hosted on GitHub and built with Travis CI