

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.

Public 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 (10 owners in total) and (3 owners in total) badges.

Employment

Swisscom as *Senior Big Data Engineer (+ Scrum Master till Jul 2019)* 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. Supervised a migration from AngularJS to Angular 7. 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.

RMoD, Inria 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>	
InterLogic 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>	
Unikernel Team (<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>	
UARNet ISP 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

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

Additional Training

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

Personal Information

Date of Birth: Aug 11, 1991	Marital Status: Married
Place of Birth: Lviv, Ukraine	Nº of children: 2
Citizenship: Ukrainian	Swiss Residence Permit: B

Languages

English: Proficient	Polish (spoken): Intermediate
Ukrainian: Native Speaker	Russian (spoken): Intermediate
Italian: Basic	German: Basic

Selected publications

- ⊕ Besides academic publishing I have a coding blog: [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

Ukrainian Catholic University as <i>Lecturer</i>		
Software Architecture for Data Science in Python	<i>Spring 2020</i>	
Advanced Programming	<i>Fall 2016</i>	
Universität Bern as <i>Teaching Assistant</i>		
Compiler Construction	<i>Spring 2017</i>	
Software Modeling and Analysis	<i>Fall 2016</i>	
Google Summer of Code as <i>Mentor</i>		
New Collections for Pharo	<i>2019</i>	
Advancing in Pharo Code Quality Support	<i>2017</i>	
FAST Java Model	<i>2013</i>	

Hobby

Hiking picturesque or difficult mountains and reflecting amazing moments of this world with my camera (<https://www.deviantart.com/ukoterpuh>). I own a 3D printer, and I design functional models that I print afterwards (<https://terpuh-labs.com>). Some time ago I was doing Kyokushinkai karate and I'm still following some of the principals I've learned there.

Remarks for Nerds

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