

# **Yuriy Tymchuk**

## Research Assistant

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*I'm a software engineer / computer scientist and a hacker in general who likes researching new ideas, developing solutions, and teaching.*

*I am focusing on software maintenance and evolution issues. I invest time in development of the tools that assist software engineers with their work.*

### **Achievements**

**QualityAssistant:** My software-quality tool with a live feedback is integrated into the latest version of Pharo IDE. Expected usage: 30 commercial companies, 20 universities (for teaching).

### **Employment**

#### **Universität Bern** as *Research Assistant*

*Jan 2016 – Present*

Research on software quality and evolutionary monitoring. Maintenance of the group's git server. Assistance in teaching. I've invented a 3D visualization that allows detection of defects in software quality evolution.

#### **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 and code review, development of ViDI code review tool and QualityAssistant static analyzer. Assistance in teaching.

#### **Innocode** as *Software engineer*

*Apr 2013 – Sep 2013*

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

#### **RMoD, Inria** as *Intern*

*Jan 2013 – Apr 2013*

Research on AST metamodels. Development of FAST: a generic metamodel and symbol resolution algorithm.

#### **InterLogic** as *Software engineer*

*Aug 2012 – Jan 2013*

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.

#### **Unikernel Team (freelance)** as *Founder/Leader*

*Mar 2010 – Aug 2012*

Different websites made from scratch. Usually online shops, sometimes web apps with rich frontend.

#### **UARNet ISP** as *Network Administrator*

*Feb 2009 – Jul 2012*

On call assistance, network administration, minor web development.

### **Programming Skills**

**Experienced:** Pharo/Smalltalk, Ruby+Rails, Java, git, TDD, Software Maintainability

**Familiar:** HTML, CSS, JavaScript, Scala, Objective-C, Python, C++, Lisp, MySQL, MongoDB, Mercurial, SVN

## **Education**

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<b>Master of Science</b> @ <i>Ivan Franko National University of Lviv</i>	2012 – 2013
Specialization in Informatics	
<b>Bachelor of Science</b> @ <i>Ivan Franko National University of Lviv</i>	2008 – 2012
Specialization in Informatics	
<b>Highschool diploma</b> @ <i>Lviv Physics and Mathematics Lyceum</i>	2006 – 2008
Specialization in Physics and Mathematics	
<b>Member of MASU</b> @ <i>Minor Academy of Sciences of Ukraine</i>	2006 – 2008
“Whimsical Bride” - the graduation research project about statistics theory	

## **Publications**

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### **conferences**

- CuboidMatrix: Exploring Dynamic Structural Connections in Software Components using Space-Time Cube**, *T. Schneider, Y. Tymchuk, R. Salgado, and A. Bergel*, In Proceedings of VISSOFT'16 (4th IEEE Working Conference on Software Visualization), IEEE, 2016.
- 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), IEEE, 2016.
- Code Review: Veni, ViDI, Vici**, *Y. Tymchuk, A. Mocci, and M. Lanza*, In Proceedings of SANER'15 (22nd International Conference on Software Analysis, Evolution, and Reengineering), pp. 151–160, IEEE, 2015.
- Collaboration in Open-source Projects: Myth or Reality?**, *Y. Tymchuk, A. Mocci, and M. Lanza*, In Proceedings of MSR'14 (11th Working Conference on Mining Software Repositories), pp. 304–307, ACM, 2014.

### **formal demonstrations**

- ViDI: The Visual Design Inspector**, *Y. Tymchuk, A. Mocci, and M. Lanza*, In Proceedings of ICSE'15 (37th IEEE/ACM International Conference on Software Engineering), pp. 653–656, IEEE Press, 2015.

### **doctoral symposium**

- Treating Software Quality as a First-Class Entity**, *Y. Tymchuk*, In Proceedings of ICSME'15 (31st International Conference on Software Maintenance and Evolution), pp. 594–597, IEEE, 2015.

### **workshops**

- When QualityAssistant Meets Pharo: Enforced Code Critiques Motivate More Valuable Rules**, *Y. Tymchuk, M. Ghafari, and O. Nierstrasz*, In Proceedings of IWST'16 (International Workshop on Smalltalk Technologies), 2016.
- What if Clippy Would Criticize Your Code?**, *Y. Tymchuk*, In Proceedings of BENEVOL'15 (14th edition of the Belgian-Netherlands software evolution seminar), 2015.
- Generic Name Resolution with Metamodels**, *Y. Tymchuk, B. Arezki, A. Etien, N. Anquetil, and S. Ducasse*, In Proceedings of BENEVOL'13 (12th edition of the Belgian-Netherlands software evolution seminar), 2013.

**theses.....**

**Extending FAMIX metamodel to generate ASTs for Java and Smalltalk applications** (Mater's thesis), Y. Tymchuk, Ivan Franko National University of Lviv, Ukraine, 2013.

## Teaching

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

Software Atelier IV

*Spring 2014*

Programming Fundamentals I

*Fall 2014, Fall 2015*

Bachelors Project

*Spring 2015*

## Service

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**Program Committee - NIER and Tool Tracks**

*VISSOFT 2016*

*4rd IEEE Working Conference on Software Visualization*

**Artifact Evaluation Committee**

*VISSOFT 2015*

*3rd IEEE Working Conference on Software Visualization*

## Personal Information

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**Date of Birth:** Aug 11, 1991

**Marital Status:** Married

**Place of Birth:** Lviv, Ukraine

**Nº of children:** 1

**Citizenship:** Ukrainian

## Languages

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**English:** Proficient

**Polish (spoken):** Intermediate

**Ukrainian:** Native Speaker

**Russian (spoken):** Intermediate

**Italian:** Basic

## Hobby

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Hiking picturesque or difficult mountains and reflecting amazing moments of this world with my camera. Few years ago I was still doing Kyokushinkai karate which allowed me to train my body as hard as I was training my mind.

## 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