

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 impactful solutions, and teaching. Currently, my primary focus is software maintenance and evolution. I develop tools that assist software engineers in building healthy projects.

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 – Sep 2017 (expected)*

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

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

Publications

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), pp. 126–135, 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

Ukrainian Catholic University as *Teacher*

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*

Service

Program Committee - Poster & Demo Track *ICTERI 2017*

13th Int. Conference on ICT in Education, Research and Industrial Applications

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

Date of Birth: Aug 11, 1991

Marital Status: Married

Place of Birth: Lviv, Ukraine

Nº of children: 1

Citizenship: Ukrainian

Languages

English: Proficient

Polish (spoken): Intermediate

Ukrainian: Native Speaker

Russian (spoken): Intermediate

Italian: Basic

Hobby

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

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