

# Zeljko Obrenovic

## *Curriculum Vitae*

### Contact

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### Highlights

- **18 years** of professional experience.
- **Principal Consultant** at [Software Improvements Group \(SIG\)](#).
- Actively involved in **consultancy**, connecting results of low-level technical analyses to higher-level management issues, risks and costs.
- Care about **software quality** and avoiding **technical depth** (e.g. see my recent [O'Reilly webcast](#) and [training videos](#) on building maintainable software). Actively helping development teams and architects to build **high-quality** software.
- An innovator leading the development of tools and models for analysis quality of software systems, including **maintainability, security, usability, performance** and **reliability**. My **emphasis is on design**: I build experimental systems to explore new domains. I also aim at [bridging design research and practice](#), trying to get best of both worlds.
- Experience in **leading** and growing a **team** of highly skilled people. I deeply care about people and their development. I have extensive **coaching** experience.
- A **PhD in Computer Science**, and strong **international reputation** and visibility in the software and interaction design communities.
- **Write regularly** [about software and interaction design](#). Author of books "[Design Instability: Notes on Design Complexity](#)" and "[Research and Practice: Essays of a Researcher Practitioner](#)".
- An **experienced software designer**, and the developer behind three innovative projects:
  - the rapid-prototyping middleware AMICO (<http://amico.sourceforge.net>)
  - the software design tool Sketchify (<http://sketchify.sourceforge.net>)
  - Sketchlet (<http://sketchlet.sourceforge.net>)
- Before joining SIG worked as:
  - a consultant and technology evangelist at [Backbase](#)
  - an assistant professor at the [Technical University in Eindhoven](#) (TU/e)
  - a researcher at [CWI](#) in Amsterdam
  - a software designer at various industrial and government projects

## Professional Experience

### Current position:

Jan 2013 –

**Principal Consultant, Software Improvement Group**  
(<http://www.sig.eu>), (full time)

- **Software engineering and architecture consultancy on client projects in both public and private sector:** DHL, KPN, T-Mobile, Vodafone, Centric, Ziggo, Voogd & Voogd, Mendix, Outsystems, ABN Amro, BTPN (Indonesie), TIE Kinetix, ICTU, Jeugdzorg, Vluchtelingenwerk Nederland, Rijkswaterstaat, Woningnet, ProRail, Trans Link System (TLS), CNV, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, Gemeente Utrecht, Rechtspraak, Belastingdienst, Eneco, Domstolsstyrelsen, Vlaamse Overheid, Nederlandse Loterij Organisatie, CIBG, DUO, FieldComm Consortium, ABB, CodeWriters, Emerson, Sogeti, Capgemini, Exact, Mirabeu, Havenbedrijf Rotterdam, NPM Capital, Iddink, Morpho / Safran, Nationale Nederlanden, BMW Alphabet, Sofico, Dileo, Acerta...Leading the software measurement and analytics group
- **Innovation of the SIG analytics tools** based on the ISO 25010 standard (maintainability, security, performance reliability, usability)
- **Development of new software products** for software measurements and analysis. Design and hands-on coding.

### Past positions:

2012 – 2013

**Tech Evangelist, Best Practices Consultant (Patterns & Practices, full time), Patterns & Practices Department, Backbase, Amsterdam**

- *Collecting and sharing best software development and software architecture practices related to the Backbase user experience management platform*
- *Research and development of novel interactive systems*
- *Teaching, maintaining connections with academia*

2008 – 2012

**Assistant Professor (full time), User Centered Engineering (UCE), Faculty of Industrial Design, Eindhoven University of Technology**

- *Research in the domain of design of interactive systems,*
- *Development of novel interactive systems*
- *Teaching undergraduate and master courses*
- *A proposer and project secretaries for the IOP-IPCR project REPAR (<http://repar-project.org/>)*

2006 - 2008

**Research Scientist (full time), Semantic Media Interfaces, Centre for Mathematics and Computer Sciences (CWI), Amsterdam**

- *Design of novel interactive systems,*

- *Exploring semantic media and software development topics,*
- *Participation in two international projects*
- *The ITEA Passepartout project ([itea3.org/project/passepartout.html](http://itea3.org/project/passepartout.html))*
- *K-SPACE Network of Excellence.*

1999 - 2005

**Software Engineer** (full time),

The Center for Command Information Systems, Belgrade, Serbia.

- *Development of information systems, design of interactive systems,*
- *Exploring various software development topics,*
- *Supervising various projects, teaching and education.*

## Education

- 2004      **Ph.D. in Computer Science**, School of Electrical Engineering, University of Belgrade, Belgrade, Serbia and Montenegro.
- 2002      **M.S. in Computer Science**, School of Electrical Engineering, University of Belgrade, Belgrade. GPA: 10.00/10.00.
- 1999      **B.S. in Computer Science**, Military Technical Academy, University of Belgrade, Belgrade.

## Software Development Skills

- Highly experienced in Java, JavaScript, HTML, CSS, SVG, SQL.
- Previous experience in C/C++, C#, Python, VBScript, ASP(X), JSP, Visual Basic, Antlr.
- Also (in the dawn of education) Ruby, Groovy, PHP, Lisp, Fortran, Assembler. Long time ago I also used to program in Clipper and Pascal.

## Open-Source Projects Activities

The main developer and administrator for several open source systems:

- Sketchlet (<http://sketchlet.sourceforge.net/>)
- Sketchify (<http://sketchify.sourceforge.net/>)
- AMICO (<http://amico.sourceforge.net>)

## Teaching Experience

I have more than **10 years** of teaching and coaching experience in different roles and positions.

### Professional educations:

- Author and presenter of O'Reilly Training Videos on ***Building Maintainable Software*** (±4hours)
- Co-author of the O'Reilly Webcast [Building maintainable software for sustainable business growth: 8 best practices](#)

### 2016-2017 Technical University in Eindhoven (TU/e):

Post-MSc [User System Interaction \(USI\)](#):

- [Data Analytics](#): ***Creating Business Value with Data and Analytics***, main lecturer

### 2008-2012, Technical University in Eindhoven (TU/e):

*Undergraduate courses:*

- Main lecturer for the course [Sketching Interactive Systems](#)  
Industrial Design, TU/e
- [Coaching](#) individual students and projects at the bachelor level.

*Master courses:*

- Main lecturer for the course [Multi-Modal Interaction](#)  
Industrial Design, TU/e
- [Coaching](#) individual students and projects at the master level

*PhD students (daily supervisor)*

### 2006/2007, Amsterdam:

- Intelligent Multimedia Technology ([Fall 2006, Fall 2007](#)) - Main Lecturer, Vrije Universiteit Amsterdam
- Multimedia Authoring ([Spring 2006](#)) - Main Lecturer, Vrije Universiteit Amsterdam

## Professional Community Activities

### Board Member

- IEEE Software Advisory Board (2015-)
- IEEE IT Professional Editorial Board (2017-)

## Honors and Grants

- October 2012 – Awarded the ACM Senior Grade (ACM award given to individuals who "*demonstrated performance that sets them apart from their peers through technical leadership, and technical or professional contributions.*")
- June 2006 - Recognized as a multimodal interface "guru" by SIMILAR, European Network of Excellence dedicated to multimodal interfaces.
- January 2000 – January 2002 – M.S. scholarship grant (first in rank) from The Ministry of Science, Research, and Technology, The Government of Serbia

## Standardization: W3C activities

- Member of the W3C Multimedia Semantics Incubator Group

## Interviews

- Book *SIMILAR Dreams, Multimodal Interfaces in Our Future Life*, UCL Presses Universitaires de Louvain, July 2005, ISBN: 2-930344-91-1, pp. 306-311

## Professional Memberships

- ACM (Senior Member)
- IEEE Computer Society
- The Royal Institute of Philosophy
- International Association of Software Architects (IASA)
- System Architecture Study Group (SASG)

## Languages

- **English, Dutch:** fluent
- **Serbian, Croatian:** native

## Personal interests

- Athletics
- Philosophy

## Selected publications

### Books

1. **Z. Obrenovic, E. Stolterman**, *Design Instability: Notes on Design Complexity*, LeanPub 2017, 1<sup>st</sup> edition.
2. **Z. Obrenovic**, *Research and Practice: Essays of a Researcher-Practitioner*, LeanPub 2017, 1<sup>st</sup> edition.
3. **Z. Obrenovic**, *Human-Computer Interaction*, FON: TEMPUS, Belgrade, 2004, ISBN 86-7680-027-8, (in Serbian, adapted PhD Thesis).

### International journal papers

1. **Z. Obrenovic**, "Insights from the Past: The IEEE Software History Experiment", *IEEE Software*, vol. 34,. No. 7, (Jul/Aug 2017), pp. 71-78.
2. **Z. Obrenovic**, "Research and Practice: The Curious Case of 'Small' Researchers-Practitioners", *Communications of the ACM*, vol. 56,. No. 9, (Sept 2013), pp. 38-40.
3. **Z. Obrenovic**, "The Hawthorne Studies and Their Relevance to HCI Research", *ACM interactions* 21, 6 (Nov-Dec 2014), pp. 46-51.
4. **Z. Obrenovic**, "Design as a Political Activity: Borrowing From Classical Political Theories", *ACM interactions* 22, 6 (Nov-Dec 2015), pp. 42-45.
5. **Z. Obrenovic**, "Doing research in practice: some lessons learned". *ACM Crossroads*, 20, 4 (June 2014), 15-17.
6. **Z. Obrenovic**, "The four points of the HCI research compass". *ACM interactions* 20, 3 (May 2013), 34-37.**Z. Obrenovic**, "Software Sketchifying – Bringing Innovation into Software Development", *IEEE Software*, vol. 30, no. 3 (March 2013), pp. 80-86.
7. **Z. Obrenovic**, Bart den Haak, "Integrating End-User Customization and Authentication: The Identity Crisis", *IEEE Security and Privacy*, Spetember/October 2012, Vol. 10, No. 5, pp. 82-85.
8. **Z. Obrenovic**, J.B. Martens, "Sketching Interactive Systems with Sketchify", *ACM Transactions on Computer Human Interaction (ToCHI)*, Vol. 18, no. 1, March 2011. (Also presented at the ACM CHI 2011 conference)
9. **Z. Obrenovic**, D. Gašević, "End-User Service Computing: Spreadsheets as a Service Composition Tool", *IEEE Transactions on Services Computing*, vol. 1, no. 4, pp. 229-242, October-December, 2008.
10. **Z. Obrenovic**, J. Abascal, D. Starcevic, "Universal Accessibility as a Multimodal Design Issue", *Communications of the ACM*, Vol. 50, No. 5, May 2007, pp. 83-88.
11. **Zeljko Obrenovic**, Dušan Starcevic, Bran Selic, "A Model Driven Approach to Content Repurposing", *IEEE Multimedia*, Vol. 11, No. 1, January-March 2004, pp. 62-71.

12. **Z. Obrenovic**, D. Starcevic, "Modelling Multimodal Human-Computer Interaction", *IEEE Computer*, Vol. 37, No. 9, September 2004, pp. 65-72.
13. **Z. Obrenovic**, "Rethinking HCI education: teaching interactive computing concepts based on the experiential learning paradigm". *ACM interactions* 19, 3 (May 2012), 66-70.
14. **Z. Obrenovic**, "Design-Based Research: What We Learn When We Engage In Design Of Interactive Systems". *ACM interactions* 18, 5 (September 2011), 56-59.
15. **Zeljko Obrenovic**, Dragan Gasevic, Anton Eliens, "Stimulating Creativity Through Opportunistic Software Development", *IEEE Software*, Vol. 25, No. 6, Nov/Dec, 2008, pp. 64-70.
16. **Zeljko Obrenovic**, Dragan Gasevic, "Open-Source Software: All you do is put it together", *IEEE Software*, Vol. 24, No. 5, Sept/Oct, 2007, pp. 86-95.
17. **Zeljko Obrenovic**, Dragan Gasevic, "Mashing Up Oil and Water: Combining Heterogeneous Services for Diverse Users", *IEEE Internet Computing*, vol. 13, no. 6, pp. 56-64, November/December, 2009.
18. Lynda Hardman, **Zeljko Obrenovic**, Frank Nack, Brigitte Kerhervé, Kurt Piersol "Canonical processes of semantically annotated media production", *ACM Multimedia Systems Journal*, Volume 14, Number 6 / December, 2008, pp. 327-340.
19. **Zeljko Obrenovic**, "Web Accessibility and Open Source Software", *Disability & Rehabilitation: Assistive Technology* 2009, Vol. 4, No. 4, Pages 227-235.
20. **Z. Obrenovic**, Dušan Starcevic, "Adapting the Unified Software Development Process for User Interface Development", *Computer Science and Information Systems*, Volume 03, Issue 01 (June 2006), pp. 33-52.
21. M. Jovanovic, D. Starcevic, **Z. Obrenovic**, "Designing Aircraft Cockpit Displays: Borrowing from Multimodal User Interfaces", *Transactions on Computational Science* 3: pp. 55-65, 2009.
22. Emil Jovanov, Dušan Starcevic, Aleksandar Samardzic, Andy Marsh, **Zeljko Obrenovic**, "EEG analysis in a telemedical virtual world", *Future Generation Computer Systems* 15 (1999), pp. 255-263.