

Dr. Igor O. Popov

Interaction Designer and Senior Front-end Developer at DueDil
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Personal

Born on November 1, 1982.

Macedonian citizenship.

Education

Ph.D. Computer Science (emphasis on Human-Computer Interaction and Usability), University of Southampton, 2009 - 2013

Thesis Title: End-user Data-centric Interactions over Linked Data

Advisors: dr. m.c. schraefel and Prof. Dame Wendy Hall.

Thesis Committee: External Examiner: Prof. David Karger (MIT) Internal Examiner: Dr. Mark Weal (University of Southampton)

Dipl. Ing. Computer Science, Saints Cyril and Methodius University, 2001 - 2006

Thesis: Comparative analysis of Learning Management Systems (LMSs).

Employment

Feb 2013 - Present. Interaction Designer and Senior Front-end Developer at DueDil. My role at DueDil was a synthesis of two roles. As an interaction designer, I was responsible for researching and designing certain aspects of the product (in particular lead the Advanced Search functionality), making sure that it met DueDil's business goals. This role included gathering and analysing potential design alternatives, measuring tradeoffs and justifying proposed solutions. As a Senior Front-end Developer I was responsible for implementing these designs on the front-end, which included designing and implementing rich HTML5/Javascript applications.

Oct 2009 - Jan 2013. PhD Student, University of Southampton. Research topic: User Interfaces supporting Interaction over Linked Data.

Jun 2011 - Aug 2011. Research intern at Microsoft Research (Redmond, WA). Worked in the VIBE group on visualisation and analytics over large datasets.

Jan 2008 - Sep 2009. Junior Researcher, Semantic Technology Institute (STI) Innsbruck. Research on topic of Ontology Engineering and Semantic Web.

Jan 2006 - Mar 2006. Research intern at the University of Geneva, Switzerland, Conducted on a comparative analysis of Learning Management Systems to be adopted by the university.

Sep 2006 - Sep 2007. Junior Teaching Assistant Saints Cyril and Methodius University.

Oct 2004 - Jan 2005. Intern at Macedonian Academic and Research Network (MARNet), Worked on developing a Computer Emergency Response Team (CERT) Information System.

Jul 2003 - Aug 2003. Intern at the Academic and Research Network of Slovenia (ARNES), Work on and developed log analyser for port scans.

Technical skills

Web technology stack: HTML, CSS, JavaScript (Backbone, AJAX, jQuery, D3.js, Dojo, Mustache, High Charts), XML, RDF/OWL

Programming languages: Python (Django Web Framework), secondary: Java

Databases: SQL, MySQL, SQLite,

Non-relational DB: MongoDB, SPARQL (4store), RDFlib, Memcached, Redis

Project management: Scrum (agile) software development process, version control systems (SVN, Git), object-oriented analysis and design (UML)

System Admin: Linux (Debian-based) application servers with LAMP, shell scripting

Others: Flash animation and ActionScript, Photoshop, OmniGraffle, LaTeX markup language, Emacs, Eclipse

Certificates: Cisco Certified Network Associate courses (CCNA1, CCNA2).

Legacy skills: Perl, PHP, C, C++, Pascal/Delphi

Research skills

Human-Computer Interaction, User Research, Participatory Design, UI/UX, Semantic Web Technologies

Software development projects

mashpoint.net.

A prototype framework that allows data-powered web applications to be linked based on the similarity of the entities in their data. This allows complex data queries to be answered by combining data from multiple applications.

Technologies used: Django/Python, HTML5, Javascript+jQuery, MySQL, Redis.

sampleAction.

A tool that simulates interacting with incremental visualisations and analytics over big datasets.

Technologies used: C#, Microsoft SQL Server, HTML5, Javascript+jQuery, Highcharts.

flowboard.me (*under development*)

A social media dashboard that allows users to ask, visualise and arrange their social data streams.

Technologies used: HTML5, Javascript+jQuery, Sammy.js, SPARQL.

Boardpedia (*under development*)

Pinterest style faceted browser for Wikipedia. Customisable data exploration app which can be deployed and configured over any SPARQL endpoint.

Technologies used: HTML5, Javascript+jQuery, BackboneJS, SPARQL.

Visor

A tool to explore and view relationships between articles in Wikipedia using extracted data from DBPedia.

Technologies used: HTML5, Javascript+jQuery, D3.js, SPARQL.

GEORDi

A tool for generic data exploration and analytics based on unfolding spreadsheets.

Technologies used: HTML5, Javascript+jQuery, Python, SPARQL, RDF.

Dayta

A research prototype which analyses your calendar and enriches it with related publicly available datasets.

Technologies used: HTML5, Javascript+jQuery, Python, SPARQL.

Research and Academic Experience

Research projects

EnAKTing the Unbounded Data Web: Challenges in Web Science, EPSRC funded project.

The EnAKTing project was led by Sir Nigel Shadbolt, Sir Tim Berners-Lee and Prof. Dame Wendy Hall and was dedicated to solving fundamental problems in achieving an effective web of Linked Data. As a PhD researcher within the project, my research focused on interaction challenges associated with exploration and utilisation of Linked Data by non-technical users.

INSEMTIVES - Incentives for Semantics EU FP7 STREP Project.

The INSEMTIVES project investigated methods and tools that incentivise users to contribute quality metadata to existing sources of unstructured data.

ACTIVE - Knowledge Powered Enterprise EU FP7 IP Project.

ACTIVE researched technologies that improved communication and collaboration within enterprises.

Teaching experience

Junior Teaching Assistant, Saints Cyril and Methodius University, Faculty of Natural Sciences and Mathematics, Skopje Macedonia, 2006 - 2007.

Instructor in Dynamic and Interactive Web Design, SEMOS School of Computer Science, Skopje Macedonia, 2003 - 2004.

Studies

Graduated for the first Stanford Venture-Lab Course in Entrepreneurship.

Participant in the Sixth Summer School on Ontological Engineering and the Semantic Web (SSSW'08), 2008.

Refereed publications

Popov, I., schraefel, m.c., Hall, W., and Shadbolt, N. (2012) mashpoint: Browsing the Web along Structured Lines. Poster paper in: Symposium on User Interaction, Software and Technology (UIST 2012)

Popov, Igor, schraefel, m.c., Correndo, Gianluca, Hall, Wendy and Shadbolt, Nigel (2012) Interacting with the Web of Data through a Web of inter-connected lenses. In, WWW2012 Workshop: Linked Data on the Web (LDOW2012), Lyon, FR, 16 Apr 2012. 9pp.

Popov, Igor (2012) mashpoint: Supporting Data-centric Navigation on the Web. At CHI 2012, Austin, Texas, 05 - 12 May 2012.

Fisher, Danyel, Popov, Igor, Drucker, Steven and schraefel, monica (2012) Trust Me, I'm Partially Right: Incremental Visualization Lets Analysts Explore Large Datasets Faster. In, CHI 2012, Austin, Texas, 05 - 12 May 2012

Popov, I., schraefel, m.c., Hall, W., and Shadbolt, N. (2011) Connecting the Dots: A Multi-pivot Approach to Data Exploration. In: International Semantic Web Conference (ISWC 2011)

Omitola, T., Koumenides, C. L., Popov, I. O., Yang, Y., Salvadores, M., Correndo, G., Hall, W. and Shadbolt, N. (2010) Integrating Public Datasets Using Linked Data: Challenges and Design Principles. In: Future Internet Assembly, 16-17 December 2010, Ghent, Belgium.

Smith D. A., Popov O. I., m.c. schraefel, Data Picking Linked Data: Enabling Users to create Faceted Browsers. In: Web Science Conference 2010, 26-27 April, 2010, Raleigh, NC, USA.

Tope Omitola, Christos L. Koumenides, Igor O. Popov, Yang Yang, Tim Berners-Lee, Nicholas Gibbins, Wendy Hall, mc schraefel, and Nigel Shadbolt, Put in your postcode, out comes the data: A Case Study, ESWC, 2010

Simperl E., Mochol M., Bürger T., Popov I., Achieving Maturity: the State of Practice in Ontology Engineering in 2009, 8th International Conference on Ontologies, Databases, and Applications of Semantics ODBASE, 2009.

Imtiaz A., Giernalczyk A., Bürger T., Popov I., A predictive framework for value engineering within collaborative knowledge workspaces, eChallenges Conference, 2009.

Imtiaz A., Bürger T., Popov I., Simperl E. Framework for Value Prediction of Knowledge-based Applications, ECONOM2009 Workshop, BIS 2009.

Simperl E., Popov I., Bürger T. ONTOCOM revisited: Towards accurate cost predictions for ontology development projects, ESWC 2009.

Other publications

Popov, I., Smith, D., Van Kleek, M., schraefel, m.c., Correndo, G. and Shadbolt, N. (2010) GEORDi: Supporting lightweight end-user authoring and exploration of Linked Data. Technical Report , School of Electronics and Computer Science, University of Southampton.

schraefel, m.c., Smith, D., Popov, I., Van Kleek, M. and Shadbolt, N. (2010) Will this work for Susan? Challenges for Delivering Usable and Useful Generic Linked Data Browsers. Technical Report , School of Electronics and Computer Science, University of Southampton.

Popov I., Ruiz Moreno C., Bürger T., Simperl E. Use cases for cost benefit information in collaborative knowledge creation. Technical Report, ACTIVE EU-IST Project, 2009.

Popov I., Bürger T., Imtiaz A., Simperl E. Deliverable 4.1.1: Preliminary predictive model for costs and benefits. Technical Report, ACTIVE EU-IST Project, 2009.

Popov I. A Cost Model for Lightweight Ontologies: Adapting the ONTOCOM Model. Technical Report TR-08-08-09, University of Innsbruck.

Popov I. Comparative analysis of Learning Management Systems. Technical Report TR-06-02-03, University of Geneva.

Language proficiency

Macedonian - Native.

English - Fluent .

Serbian/Croatian - Moderate.

German - Basic.

Awards and recognitions

Awarded Full Scholarship for Graduate Studies at the University of Southampton, September 2009.

Recognition of being continuously on the honors list during his studies and having a GPA of 10/10 in the 4th year, December 2005.

State Scholarship for Academic Excellence for 4 years, 2000-2004.

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