# Filip Nikšić

**Contact Information** IN2 d.o.o.

Croatia Web: http://web.studenti.math.hr/~fniksic

**Scientific Interests** 

Formal methods

Software verification and synthesis

Modal logics

Functional programming languages

**Education** 

10/2009–10/2011 Department of Mathematics, University of Zagreb

Enrolled in a doctoral program in mathematics

7/2004–10/2009 Department of Mathematics, University of Zagreb

Dipl. ing. (4-year degree) of Mathematics (profile: Computer Science)

Thesis: Propositional Dynamic Logic

GPA: 4.696 out of 5.00

Other Education

Seminars, Summer Schools and Courses:

• Introduction to Artificial Intelligence, online course by S. Thrun and P. Norvig, Oct–Dec 2011

• Machine Learning, online course by A. Ng, Oct–Dec 2011

European Summer School in Logic, Language and Information, Slovenia, 2011

• Model theory and applications, three-day course by I. Tomašić, Croatia, 2010

Advanced set theory, five-day course by M. Džamonja, Croatia, 2009

 Technology of e-Science: Developing applications on a computer cluster and grid, twoday seminar, Croatia, 2007

**Work Experience** 

04/2010-present

IN2 d.o.o., Zagreb

Development of an application system for investment/pension funds. Analysis, tuning and implementation of financial algorithms for portfolio analysis, risk management, hedging, performance attribution; graphical data representation etc. Technologies: Oracle DB (SQL, PL/SQL), Java (Spring Framework) and Adobe Flex.

**Teaching Experience** 

03/2008–09/2009 Department of Mathematics, University of Zagreb

Demonstrator of courses: Set theory (Spring 2008), Introduction to parallel computing (Fall

2008), Application of parallel computers (Spring 2009).

09/2002-06/2005 Informatics Club NET, Ivanić-Grad

Preparation of high school students for competitions in informatics.

Other Experience

09/2002–12/2006 PlayMath Journal, Zagreb

I participated in the founding and editing of the high school mathematical journal PlayMath.

My main responsibility was the web edition.

03/2004–04/2004 Croatian Mathematical Society (HMD), Zagreb

As part of a five-member team, I participated in the preparation for the publication of the book *Matematička natjecanja u Republici Hrvatskoj 1992.–2006.*, ed. Zdravko Kurnik, HMD,

Zagreb, 2007.

## **Technical Skills**

Operating systems: GNU/Linux, Windows

Programming languages: C/C++, Java, PL/SQL, ActionScript (Flex)

I am interested in functional programming languages like Haskell.

Databases: Oracle DB, MySQL

Typesetting: Language Language

# **Competitions**

Notable awards:

• 1st place (BASIC/Pascal), Croatian National Competition in Informatics, 1999

• 2nd award, Croatian National Competition in Mathematics, 2000

• 2nd place (Logo+BASIC/Pascal), Croatian National Competition in Informatics, 2000

• 1st place (Junior Division), USA Computing Olympiad (Fall Internet Contest), 2001

• 3rd place, Croatian Programmers' League, 2004

Participations: • Internet Problem Solving Contest (http://ipsc.ksp.sk)

Regular participant since 2001. Highest ranked on the IPSC 2010 with M. Horvat and

H. Torbašinović as Fruity Fajitas (16/30 points, #168 out of  $\sim$ 750 teams).

Various other contest participations (Facebook Hacker Cup, Google Code Jam, PL/SQL

Challenge, ...).

#### Other

Foreign languages: Active knowledge of English.

## **Publications**

[1] F. Nikšić, Svijet matrica, PlayMath, no. 2, pp. 11–15, 2003.

[2] F. Nikšić, Traženje najkraćeg puta, PlayMath, no. 3, pp. 5–8, 2003.

[3] F. Nikšić, M. Horvat, Mozgalica ŠEST STOTICA, *Matka*, no. 44, 2003. M. Horvat, F. Nikšić, Igra šest stotica, *PlayMath*, no. 16–17, pp. 18–20, 2008.

Ivanić-Grad, July 10, 2012