

## Curriculum vitae of Jan Hubička

Name: Jan Hubička

Born: 01/04/1978, Tábor, Czech Republic

Home address: Dukelských bojovníků 1944, Tábor, 390 03

Phone: +420 381 232613

Email: hubicka@ucw.cz

### Education:

**High school in České Budějovice with focus on mathematics, 1996**

**Master Degree in Computer Science, 2002**

Faculty of Mathematics and Physics, Charles University in Prague

Concentrations: Discrete Mathematics, Compiler Design

Thesis: Ramsey Properties of Universal Sets, advisor Jaroslav Nešetřil

**Doctoral Student, Computer Science, since 2002**

Faculty of Mathematics and Physics, Charles University in Prague

Concentrations: Graph Homomorphisms, Universal and Generic Structures

Thesis: Combinatorial Properties of Finite Models, advisor Jaroslav Nešetřil

### Teaching experience:

- Teaching assistant of discrete mathematics in 2002–2004
- Teaching assistant of algorithms in 2004–2007
- Lecturer of seminar about advanced programming language compiler techniques since 2003

### Software projects (selected):

- Koules (game), 1993–1995
- XaoS (realtime fractal zoomer), 1995–1999
- AA-project (ASCII art library and tools), 1997–2000
- GNU Compiler Collection (GCC) i386 backend improvements, 1997–2000
- Profile driven optimizations in GCC, 1998–2003
- Port of GCC to x86-64 architecture, Architecture Binary Interface design, 2000–2007
- Interprocedural optimization framework in GCC, 2004–2007

## Other activities:

Senior GCC Developer, at SUSE ČR, s.r.o.

### Project of digitization archive Šechtl and Voseček

Software, web pages, historical research, co-authoring texts for exhibitions, preparing digital prints from historical negatives and cooperating on preparing the exhibitions:

- “History of Šechtl and Voseček Studio” (August 2004–April 2005)
- “Photographic techniques of Josef Šechtl” (till May 2nd 2005)
- “Historical photographs—100 years of Tábor Gym Hall” (till end of September 2005)
- “Alexander Seik and Ignác Šechtl—first photographers in Tábor. Commemorating the 100th Anniversary of the death of Alexander Seik, 1905” (till end of February 2006)
- “Sergei Mikhailovich Prokudin-Gorsky: A Selection from the Collection “The Splendors of Russia in Natural Color”—Color Photographs from the Years 1905–1916” (till June 16th 2006)
- “Historical photographs celebrating 140 years of the School of Agriculture in Tábor” (till November 16th 2006)
- “Marie Šechtlová: Photographic Stories” (till March 2nd, 2007)  
Curator of exhibition: Antonín Dufek
- “František Krátký: Pictures from Italy, 1897” (till April 16th, 2007)  
Curator of exhibition: Pavel Scheufler
- “Josef Jindřich Šechtl: Leica Photographer, 1897”

### Presentations (selected):

- x86-64 support in GCC. Paper presentation at GCC Summit conference, Ottawa, 2003
- Call graph module in GCC (framework for intraprocedural optimization). Paper presentation at GCC Summit conference, Ottawa, 2004
- Profile driven optimizations in GCC. Paper presentation at GCC Summit conference, Ottawa, 2005
- Interprocedural optimization on function local SSA form in GCC. Paper presentation at GCC Summit conference, Ottawa, 2006

- Profile Driven Optimizations in GCC. Tutorial talk at Moscow GCC on Itanium Improvement Workshop, 2006
- Finite Paths are Universal. Presentation of joint result with Jaroslav Nešetřil, COMBSTRU final workshop, Barcelona, 2006
- Preparing of Albumen Paper. Tutorial talk at Historické fotografické techniky/Edeldrucke, Jindřichův Hradec, 2006
- Interprocedural Optimization Framework. Tutorial talk at GCC track of Gelato ICE, 2007
- Interprocedural optimization framework in GCC. Paper presentation at GCC Summit conference, Ottawa, 2007

### **Papers accepted to refereed international journals:**

- J. Hubička, J. Nešetřil: Finite Paths are Universal, *Order* 21 (2004), 181–200.
- J. Hubička, J. Nešetřil: On universal posets represented by means of trees and other simple graphs, *European J. Comb.* 26 (2005), 765–778
- J. Hubička, J. Nešetřil: Finite presentation of homogeneous graphs, posets and Ramsey classes, *Israel J. Math* 149 (2005), 21–44
- J. Hubička, J. Nešetřil: A Finite Presentation of the rational Urysohn Space, to appear in *Topology and its applications* (2007)

### **Papers accepted to international conferences:**

- J. Hubička: x86–64 support in GCC. GCC Developers' Summit Proceedings 2003
- J. Hubička: Call graph module in GCC. GCC Developers' Summit Proceedings 2004
- J. Hubička: Profile driven optimizations in GCC. GCC Developers' Summit Proceedings 2005
- J. Hubička: Interprocedural optimization on function local SSA form. GCC Developers' Summit Proceedings 2006
- J. Hubička: Interprocedural optimization framework in GCC. GCC Developers' Summit Proceedings 2007 (to appear)

### Other publications (selected):

- Diploma thesis J. Hubička, Ramsey Properties of Universal Sets (Czech language), Charles University 2002
- Paper Z. Dvořák, J. Hubička, P. Nejedlý and J. Zlomek: Infrastructure for Profile Driven Optimizations in GCC Compiler, 2003
- Specification J. Hubička, A. Jaeger, M. Mitchel (ed.): System V Application Binary. Interface. x86-64 Architecture Processor Supplement, 2000–2007
- Paper J. Hubička, Šechtl and Voseček Studios (Czech language), Historická fotografie, 2007

### Participation in conferences and workshops:

- Logic Colloquium'03, Helsinki, Finland
- 1st Annual GCC Developers' Summit 2003, Ottawa, Canada
- 10th Midsummer combinatorial workshop 2003, Prague, Czech Republic
- 2nd Annual GCC Developers' Summit 2004, Ottawa, Canada
- 11th Midsummer Combinatorial Workshop 2004, Prague, Czech Republic
- 3rd Annual GCC Developers' Summit 2005, Ottawa, Canada
- 4th Annual GCC Developers' Summit 2006, Ottawa, Canada
- COMBSTRU final workshop, 2006, Barcelona, Spain
- Moscow GCC on Itanium Improvement Workshop, 2006, Moscow, Russia
- Sixth Czech-Slovak International Symposium on Combinatorics, Graph Theory, Algorithms and Applications 2006, Prague, Czech Republic
- Historické fotografické techniky/Edeldrucke, Národní muzeum fotografie, Jindřichův Hradec, Czech Republic, 2006
- International Workshop on Mathematics of Constraint Satisfaction: Algebra, Logic and Graph Theory, University of Oxford, UK
- Gelato ICE (International Conference and Expo), 2007, San Jose, USA
- Leonhard Euler and Modern Combinatorics: applications to logic, representation theory, mathematical physics, 2008, St. Petersburg, Russia
- Eurocomb 2007, Seville, Spain
- 5th Annual GCC Developers' Summit 2007, Ottawa, Canada

**Participation in schools and programs for university students:**

- Spring school on Combinatorics, 1999, 2000, 2003, 2006, Borová Lada,
- DocCourse: Permutation groups, structures, and polynomials, P. J. Cameron, Prague, 2004
- DocCourse: Modern Methods in Ramsey Theory, Ehud Friedgut, Vojtěch Rödl, Matias Schacht, 2005
- MiniDocCourse: Ergodic Ramsey Theory: A Dynamical Approach to Static Theorems, Vitaly Bergelson, Borová Lada, 2007