

Curriculum Vitae

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Personal Dates

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Career History

- since January 2011 Product manager at **European Directories** (seated in **Mediatel.cz**)
Content and media library project,
templates for website business (SEO + optimized for conversions).
- 2008–2010 (2 years) Product manager at **Seznam.cz, a.s.** – project management, product development
relevancy of fulltext search (so I know SEO from the other side),
calibration interface for relevancy tuning (QA tool development),
image search (service **obrazky.cz**, complete redesign of image search service),
software like toolbars, etc (service **software.seznam.cz** – new features research,
testing, user tests, marketing, products websites + SEO).
- 2003–2008 (5 years) researcher at **Institute of Theoretical Computer Science (ITI)** at Charles University
problem solving, optimization, design of efficient algorithms
- 3 months in 2005 researcher at **Mitsubishi Electric Research Labs (MERL)** in Boston (internship)
elevators optimization, probabilistic route planning
- 3 months in 2006 researcher at **Rényi Institute in Budapest** (stay/internship)
research at combinatorial and computational geometry

Education

- 1991–1998 Gymnasium Jana Palacha (GJP) in Mělník—high school
- 1998–2003 Master degree at Charles University in Prague, (first class = red certificate in Czech)
Computer Science, Department of Applied Mathematics
- 2003–2008 Graduate study at Charles University, Department of Applied Mathematics
Ph.D. in Computer Science

Languages

- English – fluent, experience: altogether 8 months in USA + stays at universities, conferences.
- German – it used to be advanced level, but I did not use it in last years.
- I am beginner in Russian, Italian and Indonesian.

Skills and Interests

Research interests

- Search engines, internet technologies, optimization, graph theory, combinatorics, combinatorial and computational geometry, linear algebra, efficient algorithms and data structures.

Programmer's skills

- C/C++, Perl, Php, HTML, CSS and others like Prolog, Pascal,...
- Unix systems, CVS

Manager's skills

- Project management – IPMA, agile PM – Scrum, Kanban. Excel.
- Softskills like leadership, giving feedbacks, reviewing.

Web design, web optimalization, SEO

- Several web projects (my own or for second party) – so I know Wordpress, Drupal, GoogleAnalytics,...

I can easily learn other programming languages, tools, project methodology. I like learning new things.

University Achievements

Awards

- Bolzano award 2005, Charles University, Prague (best doctoral work on the faculty of Mathematics and Physics in Computer Science)
- McKinsey scholarship 2006, Prague (support for 10 excellent students in Czech Republic)

Internships

- Mitsubishi Electric Research Labs, Boston, USA, 3 months in 2005, optimization of elevators.
- ETH Zürich, 2 months in 2006, research in geometry and algorithms
- Renyi Institute, Budapest, 3 months in 2006/07, research in geometry and graph theory

Student's team project

- WebArchive for National library in Prague

Papers

- Jakub Černý: *A Simple Proof for Open Cups and Caps*. European Journal of Combinatorics, Volume 29, Number 1, January 2008, Pages 218–226
- Jakub Černý and Jan Kynčl and Géza Tóth: *Improvement On the Decay of Crossing Numbers*, Proceedings 15th International Symposium, Graph Drawing 2008, Lecture Notes in Computer Science, vol. 4875, p. 25–30, Springer Berlin / Heidelberg, 2008
- Jakub Černý: *Coloring circle graphs*. Electronic Notes in Discrete Mathematics, Volume 29, August 2007, Pages 457–461
- Jakub Černý, Zdeněk Dvořák, Vít Jelínek, Jan Kára: *Noncrossing Hamiltonian Paths in Geometric Graphs*. Discrete Applied Mathematics 155(9): 1096–1105 (2007)
- Henning Bruhn, Jakub Černý, Alexander Hall and Petr Kolman: *Single Source Multiroute Flows and Cuts on Uniform Capacity Networks*. SIAM conference on Discrete Algorithms (SODA) 2007: 855–863
- Jakub Černý: *Geometric graphs with no three disjoint edges*, Discrete and Computational Geometry, vol. 34, issue 4, p. 679–695, Springer-Verlag, 2005

- Jakub Černý, Zdeněk Dvořák, Vít Jelínek, Jan Kára: *Noncrossing hamiltonian paths in geometric graphs*, Proceedings 11th International Symposium, Graph Drawing 2003, Lecture Notes in Computer Science, vol. 2912, p. 86-97, Springer-Verlag, 2004
- J. Černý, J. Kára, D. Král, P. Podbrdský, R. Šámal, M. Sotáková: *On the Number of Intersections of Polygons*, Commentationes Mathematicae Universitatis Carolinae 44(2) (2003), 217-218.
- J. Černý, D. Král, H. Nyklová, O. Pangrác: *On Intersection Graphs of Segments with Prescribed Slopes*, Proceedings 9th International Symposium, Graph Drawing 2001, Lecture Notes in Computer Science vol. 2265, p. 261-271, Springer-Verlag, 2002

Student scientific competition (SVOČ)

- Jakub Černý, Jan Kára, Daniel Král, Pavel Podbrdský, Miroslava Sotáková, Robert Šámal: *On the number of intersections of two polygons*, 2001
- Jakub Černý, Zdeněk Dvořák, Vít Jelínek, Jan Kára, Pavel Podbrdský: *Oriented game coloring number*, 2002
- Jakub Černý, Zdeněk Dvořák, Vít Jelínek, Jan Kára: *Noncrossing hamiltonian paths in geometric graphs*, 2003

Participation in Workshops and Confernces

Graph Drawing 2007, Sydney, Australia
 Eurocomb 2007, Sevilla, Spain
 SODA 2007, New Orleans, USA
 CS06, Prague, Czech Republic
 Discrete and Computational Geometry (2006), 20 years later, Snowbird, Utah, USA
 Workshop on Discrete Geometry 2005, Oberwolfach, Germany
 DocCourse 2004 (in Prague and in Berlin), DocCourse 2005, 2006 (in Prague)
 STTI 2004, 2005, Prague, Czech Republic
 SVOČ 2001, 2002, 2003 (Student scientific competition), Czech Republic
 Spring School on Combinatorics 2000, 2001, 2002, 2003, 2004, 2005.
 Eurocomb 2003 (conference on combinatorics, graph theory and applications), Prague, Czech Republic
 10th International Conference on Graph Drawing 2001, Vienna, Austria
 The Elbe Sandstone Geometry Workshop, 2001, Rynartice, Czech Republic
 REU (Research Experience for Undergraduates) for 2 months, 2002, 2003 at DIMACS, Rutgers University, USA

Other Activities

- organized the correspondence seminar in physics for secondary school students (from 1998 to 1999)
- organized school of maths and physics for high school students, summer and winter experience courses with goal to motivate students for maths, physics and computer science (from 1999 to 2004).
- I participated in the ACM programming contests.

Teaching and lecturing

University teaching

- *Faculty of Mathematics and Physics*: teaching assistant of programming courses (2000-2005), discrete mathematics courses (2002-2005), combinatorial and computational geometry (2003-2005), linear algebra (2003,2006), combinatorics and graph theory (2006), algorithms and data structures (2007).
- *Faculty of Philosophy*: lecture on combinatorial and graph algorithms (2005, 2006, 2007).
- *Czech Technical University (ČVÚT)*: ACM seminar (2010).
- *Other*: lectures about search engines at MUNI, VŠE, MFF.

Trainings for companies

- *Seznam.cz, a.s.*: mind maps and mind tricks (2008, 2x halfday, 30 people), reviews (2010, 3x 1day, 40 people).
- *Toulcův dvůr* (ecological centre of capital city Prague): 2days workshop on feedback and reviews (2010).

Books I wrote

- Základní grafové algoritmy, MFF, 2008 (online version at <http://kam.mff.cuni.cz/~kuba/ka/>)

Special Activities

Outdoor activities, which developed my skills (communication, team work, ...)

- I participated in many weekend and holidays experience courses organized by Instruktoři Brno (IS Brno), Velký Vůz and Brontosaurus. They are like teambuilding courses. (Příběhy, Zimní Odyssea 2001, Jak se rodí hra 2002, Tulák po hvězdách 2002, Proměny 2004, Harry Potter, Tmou, Bedna, Vikingové, HiTech, Xpedice 05, Reiki, Feedback training, ...).
- Psychological weekends by Jana Matějková (PŠL) – about psychology on experience courses.
- *Instruktorský kurz 2003/2004* by IS Brno – course for instructors of experience courses, everything what should a real instructor know, consists of many lectures and weekend courses during one year.
- Courses of First Aid (ZdrSem04, certificate "Člen první pomoci", Zdravovíkend 2003 by IS Brno, ZdrSem07, ZdrSem2010).
- Many weekend courses about motivation, review, presentation skills, voice and singing.
- Body mind centering (120hours training), joga.
- *Project Management Fundamentals 2008*, Project Friendly 2010 (conference about PM).

Outdoor groups, organizations I am affiliated with

- Instruktoři Brno
- Velký Vůz, Praha (občanské sdružení)
- LOM (League of Open Men)

Weekend and holiday courses which I co-organized (leadership experience)

- organized school of maths and physics for high school students, summer and winter experience courses with goal to motivate students for maths, physics and computer science (from 1999 to 2004).
- Zima bez Hranic 05 – winter experience course by Velký Vůz.
- Matrix 05, Matrix 06, Matrix 07 – cypher game in Prague during the whole night. Each year, there were 450, 650 and 850 participants.
- Nedělejte z toho drama 05 – dramaweekend by Velký Vůz.
- Křídla 06 – summer experience course for 24 people by Velký Vůz, I was the *leader of the organization team* (8 team members; course includes propagation (PR), program 24h/day for 10 days, everything).
- Divotvorný hrnec 07 – 4 day course about dance, drama, cooking, painting and music (by Velký Vůz)
- many other smaller courses, activities.

Hobbies

- Current hobbies: Aikido—4.kyu, running.
- Recent hobbies (there is no time to do everything interesting): Improvization – I was a member of PRALINY (Prague League in Improvization), Dancing – latin dances, Climbing, Orienteering, Running, cycling..., Travelling (3 months in Indonesia, 1+2 months in India), Drawing.