

Ing. Ondřej Poláček

PhD. candidate

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PROFILE

- Professional interests: human-computer interaction, programming, software development, usability, user research, user interface evaluation
- Research focus: text entry methods, assistive technology, voice interfaces, interactive TV, mobile computing
- Strong programming skills in C/C++, familiar with C#, Java, SQL, PHP, JScript, HTML
- Experienced in statistical analysis (R)
- Languages: Czech (native), English (fluent), German (intermediate)
- Ability to learn new things quickly
- Driving license

EDUCATION

- Faculty of Electrical Engineering, Czech Technical University in Prague,** 3/2008-recent
Prague, Czech Republic
PhD Student: Human-Computer Interaction
 - Dissertation Topic: Designing Text Entry Methods for Non-Verbal Vocal Input
 - Supervisor: prof. Pavel Slavík
- Faculty of Electrical Engineering, Czech Technical University in Prague,** 9/2002-2/2008
Prague, Czech Republic
Master of Engineering: Computer Technology
 - Thesis: Music Editor for Windows Mobile Platform

WORK EXPERIENCE

- Faculty of Electrical Engineering, Czech Technical University in Prague,** 3/2008-recent
Prague, Czech Republic
Research Fellow
 - Team member in several international and national projects
 - VitalMind (FP7 EU project): Voice input on interactive TV
 - TIP (national project): Design and development of user interface for seniors on IP TV, Text input for interactive TV
 - TextAble (CZE – USA cooperation): Text input for motor-impaired people
 - Teaching experience
 - Course assistant: Human-computer interaction, User interface testing, Design of mobile applications
 - Lectures given: Mobile text input, Multimodal interaction
 - Tutoring students: 7 bachelor and 3 master theses defended
 - Published over 20 scientific paper in human-computer interaction
 - Conference reviewer: IUI 2012, ANT 2013

- Journal reviewer: Information Sciences (2013)
- International cooperation
 - Dr. T. Grill and Prof. M. Tscheligi (University of Salzburg, Austria)
 - Dr. T. Felzer (TU Darmstadt, Germany)
 - Dr. S. Kurniawan (University of California, USA)
 - Prof. I. S. MacKenzie (University of York, Canada)
- National cooperation
 - Nangu TV: Redesign of TV user interface
 - Traintime s r.o.: Tutor for course on designing user interfaces
 - University of Hradec Kralove (FIM), Charles University in Prague (PCP)

ICT&S Center, University of Salzburg, Salzburg, Austria

3/2012-3/2013

Research Fellow

- Developed contextual interaction framework (Java SE) for prototyping context-aware applications, focus on API usability
- Development of a virtual factory for workflow simulation (Delta3D, C++)

Sunnysoft, Prague, Czech Republic

6/2006-11/2009

Senior Developer

- Developed applications for mobile devices (Windows Mobile, C++, Win API, C#): on-screen keyboard, contacts, calling card application

GEPRO, Prague, Czech Republic

2002-2006

Junior Developer

- Developed parts of CAD system for surveyors (C++, Windows API, SQL) and several database applications (Oracle, MS SQL)

OTHER ACTIVITIES

- Student volunteer on CHI 2011 and INTERACT 2011
- Member of local ACM Czech SIGCHI, ACM student member
- Provided assistance for foreign students as student volunteer in International Student Club
- Personal interests: active musician (bass guitar), sport (skiing, cycling), travelling

PUBLICATIONS

- 2014
- Sporka, A. J., **Polacek, O.**, Murin, H.: *Three Scanning Methods for Text Cursor Manipulation*. To appear in Proceedings of CWUAAT'14, Springer.
- 2013
- Polacek, O.**, Pavlik, T., Sporka, A. J.: *Efficiency of Multi-tap Text Entry Method on Interactive Television*. In Proceedings of TSD'13, pp. 217-224, Springer.
- Polacek, O.**, Grill, T., Tscheligi, M.: *NoseTapping: What else can you do with your nose?* To appear in Proceedings of MUM'13, ACM.
- 2012
- Grill, T., **Polacek, O.**, Tscheligi, M.: *ConWIZ: A tool supporting contextual Wizard of Oz simulation*. In Proceedings of MUM'12, pp. 21:1-21:8, ACM.
- Polacek, O.**, Grill, T., Tscheligi, M.: *Towards a Navigation System for Blind People: A Wizard of Oz*

- Study*. SIGACCESS Accessible Computing, vol. 104, pp. 12-29, ACM.
- Zachhuber, D., Grill, T., **Polacek, O.**, Tscheligi, M.: *Contextual Wizard of Oz: A framework combining contextual rapid prototyping and the Wizard of Oz method*. In Proceedings of AMI'09, pp. 224-239, Springer.
- Polacek, O.**, Maly I., Cmolik, L., Hanzl, F., Mikovec, Z, Slavik, P.: *Designing a user interface of interactive digital television for elderly people*. In Proceedings of AGEING'12, pp. 109-117.
- Sporka, A. J., **Polacek, O.**: *Toward a Design of Word Processing Environment for People with Disabilities*. In Proceedings ASSETS'12, pp. 263-264, ACM.
- Grill, T., **Polacek, O.**, Tscheligi, M.: *Methods towards API Usability: A Structural Analysis of Usability Problem Categories*. In Proceedings of HCSE'12, pp. 164-180, Springer.
- Sporka, A.J, **Polacek, O.**, Havlik, J.: *Segmentation of Speech and Humming in Vocal Input*. Radioengineering, vol. 21, no. 3, 2012, pp. 923-929.
- Polacek, O.**, Sporka, A. J., Mikovec, Z.: *Measuring Performance of a Predictive Keyboard Operated by Humming*. In Proceedings of ICCHP'12, pp. 467-474, Springer.
- Polacek, O.**, Klima, M., Sporka, A. J., Zak, P., Hradis, M., Zemcik, P., Prochazka, V.: *A Comparative Study on Distant Free-Hand Pointing*. In Proceedings of EuroITV'12, pp. 139-142, ACM.
- Sporka, A. J., **Polacek, O.**, Slavik, P.: *Comparison of Two Text Entry Methods on Interactive TV*. In Proceedings of EuroITV'12, pp. 49-52, ACM.
- Polacek, O.**, Sporka, A. J., Slavik, P.: *Comparative Study of Pitch-Based Gestures in Non-Verbal Vocal Interaction*. Transactions on Systems, Man, and Cybernetics Part A, vol. 42, no. 6, pp. 1567-1571, IEEE.
- Polacek, O.**, Mikovec, Z., Slavik, P.: *Predictive scanning keyboard operated by hissing*. In Proceedings of AT'12, pp. 862-869, IASTED.
- 2011
- Polacek, O.**, Mikovec, Z., Sporka, A.J., Slavik, P.: *Humsher: A Predictive Keyboard Operated by Humming*. In Proceedings of ASSETS'11, pp. 75-82, Dundee, Scotland, UK, ACM.
- Sporka, A.J., Felzer, T., Kurniawan, S., **Polacek, O.**, Haiduk, P., MacKenzie, S.: *CHANTI: Predictive Text Entry Using Non-verbal Vocal Input*. In Proceedings of CHI'11, pp. 2463-2472, ACM.
- 2010
- Polacek, O.**, Mikovec, Z.: *Understanding Formal Description of Pitch-Based Input*. In Proceedings of HCSE'10, Reykjavik, Iceland, pp. 190-197. Springer.
- Polacek, O.**, Mikovec, Z.: *Hands Free Mouse: Comparative Study on Mouse Clicks Controlled by Humming*. In Extended Abstracts of CHI'10, pp. 3769-3774. ACM.
- Polacek, O.**, Mikovec, Z., Sporka, A.J., Slavik, P.: *New way of vocal interface design: Formal description of non-verbal vocal gestures*. In Proceedings of CWUAAT'10, Cambridge, UK, pp. 137-144, Cambridge Press.
- 2009
- Polacek, O.**, Sporka, A.J., Slavik, P.: *Music alphabet for low-resolution touch displays*. In Proceedings of the International Conference on Advances in Computer Entertainment Technology, ACE '09 Athens, Greece, pp. 298-301, ACM.