

Tivadar Papai - May 24, 2008

CONTACT INFORMATION

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EDUCATION

University of Rochester, Rochester, New York USA

Ph.D. in Computer Science, Department of Computer Science (expected graduation date: June 2012, GPA: 4.0/4.0)

Budapest University of Technology and Economics, Budapest, Hungary

M.S. in Technical Informatics (Computer Engineering), Faculty of Electrical Engineering and Informatics (graduated in June 2007 with excellent result, GPA: 4.71/5.00)

- Thesis Topic: Intelligent Path Following Control of Model Vehicles
- Advisor: Professor Laszló T. Kóczy
- Specialization: Software Engineering (Department of Automation and Applied Informatics)

- Completed more than four times as many optional courses as required
The most important topics these courses covered are the following: advanced calculus, advanced queuing theory, combinatorial optimization, neural networks, fuzzy systems, programming techniques, programming languages (mainly C# .NET, J2SE, and J2EE) and web portal development (ASP .NET)
- Participated in a Biomedical Engineering M.S. program for a semester studying anatomy and biochemistry

TECHNICAL SKILLS

Programming

- Advanced Level
 - C# .NET (1.1, 2.0, 3.0)
 - J2SE (1.4.2, 5.0)
 - ASP .NET (1.1)
- Intermediate Level
 - J2ME, J2EE, C++, C, Prolog, SML, Pascal
 - JavaScript, XSTL, ASP, JSP, Java Applets, Java Servlets, PHP
- Basic Level
 - Assembly (AVR)

Web

- HTML, XML, XSLT
- ASP .NET, Java Applets, Java Servlets, JSP, ASP, PHP, CGI, JavaScript

Other

- Design patterns
- OOP and UML experience
- SQL
- Linux programming
- MFC, COM, WinAPI

RESEARCH

- Energy Balancing by Combinatorial Optimization for Wireless Sensor Networks
2005 fall - 2007 spring
- SPECT: 2D - 3D Resolution Recovery (reducing collimator blurring by EM algorithm)
2006 spring - 2006 fall
- Component-based Hardware-software System for Fuzzy Control of Automated Vehicles
2006 spring - 2007 spring
 - Writing high level parts of the software in C# .NET 2.0
 - Developing a semicircle detection algorithm for position and orientation detection based on the Circular Fuzzy Hough Transform
 - Designing and implementing the fuzzy controller for path following
 - For videos and more information please visit:
<http://www.cs.rochester.hu/papai/projects.php>

INTERNATIONAL COMPETITIONS

- **33rd International Physics Olympiad in Bali, Indonesia, 2002: Bronze medal**
(296 students from 69 countries)
- ACM International Collegiate Programming Contest, 2006
National Qualifying Contest 3rd place,
Central European Programming Contest, Honorable Mention
- 24-Hour Programming Contest, Final Round: 12th place (2nd place among Hungarian teams)

NATIONAL (HUNGARIAN) COMPETITIONS

- 1st prize both at university and national round of the Scientific Conference of Students, Hungary, 2007
Topic: Component Based Hardware-software System for Fuzzy Control of Automated Vehicles
- Hungarian National Mars Rover Building Contest: 1st prize (2007)
- Physics Competition of Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics 2003: 1st place (2002), 2nd place (2003)
- Eötvös Physics Competition: 3rd prize (2001), 1st-2nd prize (2002)
(competition exists since 1916)
- Mathematical and Physical Journal for Secondary Schools Physics Point Contest: 1st place (1998-2000), 2nd place (2001), 5th-6th place (2002)
(competition exists since 1898)
- National Physics Competition (for 11th and 12th grade secondary school students): 9th place (2000-2001), 6th place (2001-2002)

SCHOLARSHIPS

- GE (General Electric) Foundation Scholar-Leaders Program (2004-2006)
(awarded to 15 students each year in Hungary)
- Scholarship of the Hungarian Republic (2006)
(awarded to the top 0.8% of the students at Budapest University of Technology and Economics)

MEMBERSHIPS

- Student member of ACM (2007)

STANDARDIZED TESTS

TOEFL CBT (September 2006), total score: 273/300

- Listening: 28 / 30
- Structure / Writing: 28 / 30
- Reading: 26 / 30
- Essay rating: 5.5 / 6.0

GRE Subject (April 2006), Computer Science: 850 / 900 (94%)

GRE General (October 2006), Quantitative: 800 / 800 (94%)

TEACHING EXPERIENCE

Budapest University of Technology and Economics, Budapest, Hungary

- Teaching Assistant in “Declarative Programming” (2005 - 2007)
Grading exam papers, helping in oral exams.
- Teaching Assistant in “Formal Methods” (2005 - 2006) Grading exam papers.
- Teaching Assistant in “Foundations of Computer Science” (2006 fall) Holding problem solving seminars, grading exam papers.
- Teaching Assistant in “Introduction to Computer Science” (2007 spring) Holding problem solving seminars, grading exam papers.

PUBLICATIONS

- J. Levendovszky, A. Olah, Cs. Orosz, T. Papai, T. L. Tran. Energy Balancing by Combinatorial Optimization for Wireless Sensor Networks. In Proceedings of the 6th International Workshop on Rare Event Simulation (RESIM 2006), pp. 74-85, Bamberg, Germany, October 2006.
- L. Siroki, T. Papai, A. Geresdi. Component-based Hardware-software System for Fuzzy Control of Automated Vehicles. Scientific Conference of Students, Miskolc, Hungary, April 2007. (Available only in Hungarian.)
- A. Geresdi, T. Papai, L. Siroki. In Atlas Series of the Solar System (10): Experimental Space Probe Model (Hunveyor Husar). Hungarian Academy of Sciences, Cosmic Materials Space Research Group. Budapest, 2006. (Available only in Hungarian.) ISBN 963 00 6314 X ISBN 963 86873 6 3
- A. Geresdi, T. Papai, L. Siroki, L. T. Koczy. Component-based Hardware-software System for Fuzzy Control of Automated Vehicles. In Proceedings of SEFI and IGIP Joint Annual Conference 2007, pp. 397-399. Miskolc, Hungary, 1-4 July 2007. ISBN 978-863-661-772-1