Lucian CARATA

PERSONAL DATA

PLACE AND DATE OF BIRTH:	Iasi, Romania | 03 May 1986
ADDRESS:	12 Splai Bahlui Street, B11 3/15, Iasi, 700163, Romania
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EDUCATION

CURRENT Master of Science in Distributed Systems, **Technical University of Iasi**, Romania
Degree expected in February 2011

JUNE 2009 Bachelor of Engineering, **Technical University of Iasi**, Iasi, Romania
ranked *first* in class of 120 \| Major: Information Technology
Thesis: "Object Recognition in Video Sequences Using Interest
Point Detection" \| Advisor: Prof. Vasile MANTA, Thesis Evaluation: 10/10
CGPA: 9.95/10   \| Detailed List of Exams on request

JULY 2005 Bacalaureat Degree, **Costache Negruzzi High school**, Iasi
FINAL GRADE: 9.87/10

WORK EXPERIENCE

Current (Apr 2010)
SEPT 2003

EMPLOYER: **Lucius** SRL
LOCATION: Iasi, Romania
Software Developer, Software Architect

RESPONSIBILITIES: Development of real-time software measuring systems, with applications in rolling mill industry. Managed software products: Mes4Roll, an application for real time measurement of rolls from a rolling mill. The rolls must be grinded within a $10\mu m$ tolerance field relative to a given theoretical profile. I have been responsible for the software module that manages the real time feedback loop, communicating to the CNC machine the trajectory which it must follow in order to correct the errors, taking into account the measured roll errors, CNC inertia and system vibrations.

In production at: POSCO Mexico CGL Plant, Salem Steel Plant India, Abu Dhabi Steel Construction - LLC

PUBLICATIONS [1]

- L. Carata and V. Manta. Object recognition in video sequences using interest point detection. *The Bulletin of the Polytechnic Institute of Iasi, Automatic Control and Computer Engineering*, LV(LIX), Fasc.4:71–85, 2009.

- L. Carata and V. Manta. Using feature detection algorithms in shape recovery and deformation measurement. In *Proceedings of the 5'th International Conference on Manufacturing Systems, The Bulletin of the Polytechnic Institute of Iasi, Machine Manufacturing*, volume LV(LIX), Fasc.4, pages 37–44, 2009.

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[1]All the publications are available in electronic format (.pdf) from my website.

UNDERGRADUATE WORK

Current OCT 2008	PROJECT: **Cytrus** *Object recognition* Developed a modular, cross-platform graphic framework, aimed at (soft) real-time data acquisition and processing. On top of this framework, I have implemented an interest point object detection algorithm (Speed-up Robust Features - SURF), focusing on parallelization and high *fps* output for large images. By efficiently using standard multicore architectures, a sustained throughput of 13 fps was obtained when processing images with a size of $720{\times}520$. This almost doubles the processing speed compared to current single-threaded implementations (linear speedup). **Using:** C/C++, advanced template structures, C#, BOOST library, GIL library
JAN-OCT 2008	PROJECT: **UTICrawl** *Distributed Web Crawler* Developed in a team of five, the experimental web crawler investigated distributed software architectures for processing huge amounts of web page and link data. A multi-layered agent-based solution was chosen, aiming for intelligent workload distribution among worker nodes and low-communication load balancing. I was in charge with the development of hash-based load balancing, overall system statistics and performance monitoring modules. **Using:** C#, MSSQL
SUMMER 2007	Summer Intern at CODE40, *Microprojects* C#/ASP.Net project for enabling investors to finance small projects online. This was a pilot application for Holland Banks. I have developed the Microsoft Reporting Services integration module and various interface functionalities. For my contributions to the project, I have received the *Green Eminence* award. **Using:** C#, ASP.NET, SQL Reporting Services
JUN 2007 OCT 2006	PROJECT: **SVNotify** *Eclipse Plugin* A client/server application that adds features (like commit notifications and automatic code update or the ability to chat between programmers) to a Subversion server. The client is an Eclipse plugin. I was the leader of a small team, and had the responsibility of establishing the detailed application architecture and developing server-side functionality and integration with Subversion. **Using:** Java, Subversion

AWARDS AND SCHOLARSHIPS

MAY 2009	Student Scientific Communication Sessions (TUIASI University), Special Award for the best practical solution
OCT. 2008	A one-year special *Research Scholarship*, awarded by the Technical University of Iasi, for outstanding academic achievements
OCT. 2008	ACM Southeastern Europe Programming Contest, Honorable Mention
MAY 2008	Hard & Soft International Contest, 2nd Prize (team of four)
OCT. 2006	IEEE Computer Society CHC$_{60}$ competition, Honorable Mention, finalist |*Team leader* (team of four)
MAY 2006	Student Scientific Communication Sessions (TUIASI University), Special Mention
MAY 2005	Doors to Diplomacy competition, 6th place, finalist. (team of three)
MAY 2004	County Informatics Olympiad, 1st Mention
MAY 2003	County Informatics Olympiad, 3rd Place

2002, 2003	Excellency Diploma from the Regional Center of Informatics for Young People Capable of Performance, Iasi
MAY 1998	County Mathematics Olympiad, 1st Mention

TECHNICAL KNOWLEDGE

Programming:	C/C++ (including STL, Boost), Java, C# (.NET), parallel programming (MPI, OpenMP), Matlab, XML(XSD,XSLT), JavaScript, HTML, CSS, Perl, Bash Scripting
System administration:	Linux networking, SAMBA, Apache, Kernel basics, Distributed graphics computing
Technologies:	OpenGL (advanced), DirectX (advanced), CUDA, ASP.NET (advanced), J2EE (intermediate), Microsoft Reporting Services (advanced), Windows Communication Framework (advanced), JADE (intermediate), LabWindows/CVI (advanced), UML Tools, LaTeX
Databases:	Microsoft SQL Server, Oracle, MySQL
Testing:	JUnit, NUnit, Visual Studio Unit Testing Framework
Version Control:	Git, Subversion, Microsoft Team Foundation Server (TFS)

ORGANIZATIONAL AND SOCIAL SKILLS

- As a member of the Microsoft Center from my faculty, I participate in organizing yearly events and academic presentations. I also have the responsibility of coordinating weekly extracurricular ASP.NET lectures and laboratories for interested faculty students.

- I have been elected as the student representative in the Computer Engineering Faculty Council, having responsibilities in signaling and resolving community academic or organizational issues at faculty level.

- Most of the projects in which I have been involved were carried out by small or medium-sized teams. I have always found teamwork a rewarding experience, and thus managed to communicate very well with all the people I worked with. As a team leader, I dealt with the mediation of divergent opinions, focusing the group's attention on the project's goal and encouraging positive competition.

LANGUAGES

ENGLISH:	C1+ Level (speaking, listening, writing)
GERMAN:	B1 Level (speaking, listening, writing), "Zertifikat Deutsch" Certification
ROMANIAN:	Mother tongue (native)

OTHER INTERESTS AND ACTIVITIES

Extracurricular:	• Microsoft Student Partner since 2007. Teaching a weekly ASP.Net Laboratory in the Microsoft Center from the faculty (for 3 years). I also give regular technical presentations at community events.
	• Trainer for a one week intensive .NET Framework/ASP.NET course at Ditech SRL, Iasi (2009). The training was held for a Java/J2EE Senior Developer audience.

Leisure activities: │ Volleyball, Tennis, Hiking and Climbing, Photography, Fishing, Dancing

REFERENCES

Mr. Vasile MANTA, PhD
Professor, Technical University of Iasi. Faculty Dean
email: vmanta@cs.tuiasi.ro

Mr. Mihai Horia ZAHARIA, PhD
Associate Professor, Technical University of Iasi
email: mike@cs.tuiasi.ro