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Laur IVAN

Personal Information Summary of Qualifications	Nationality: Romanian 2001-2003 Corvil Networks Ltd. **System Design Engineer** 1991-1997 Computer Science Department, "Politehnica" University of Bucharest **PhD (expected graduation in Dec 2004)** 12 years experience in Software Development and Systems Administration. 7 years research experience in Parallel and Distributed Systems and Evolutionary Algorithms. 2 years of industry experience. Computer literate. Work on independent or team projects.
Work experience	Since November 2001: Corvil Ltd, Pearse St, The Enterprise Centre, Unit 15, D2, Dublin, Ireland **Software Design Engineer** Oct 1997 – Oct 2001 : Computer Science and Information Systems, University of Limerick, Limerick, Ireland **Teaching Assistant** The teaching assistantship is part of my PhD programme in the University of Limerick. The main duties are tutoring and lab supervision. I have taught Computer Organisation, Programming Languages Technologies, Artificial Intelligence, Telecommunication, Computer Networks, Computer Graphics, Computer Science 1 1997-2001: Computer Science and Information Systems, University of Limerick, Limerick, Ireland **Systems Administrator** I have maintained the SCARE project's web site until March 1999. I am administrating a 20-nodes Beowulf cluster for the same project and part of the PhD research. Oct 1997 – Jan 2001 Economic Informatics Department, Academy of Economic Studies, Bucharest, Romania **IT Consultant (remote from Ireland)** My main duties are to offer networking consultancy in equipment acquisition, optimal topologies and intranet design. Jan 1997 – Oct 1997 Economic Informatics Department, Academy of Economic Studies, Bucharest, Romania

Systems Administrator
The Economic Informatics Department employs multiple systems, multiple architecture networks: Microsoft OS-s, Linux systems, IBM AIX, Novell. I have managed the Novell networks, Linux workstations and I also designed part of the intranet.

Jan 1997 – Oct 1997
Economic Informatics Department, Academy of Economic Studies, Bucharest, Romania
Computer Science Department, "Politehnica" University of Bucharest, Romania
Associate Lecturer
The Academy of Economic Studies and "Politehnica" University of Bucharest are among the highest rated universities in Romania. I have lectured Computer Networks and taught (labs and tutorials) Assembly Languages, Data Structures and Algorithms and Advanced Programming Languages.

Feb 1996 – Jun 1996
Schlienger S.A., Mulhouse France
IT Consultant
Schlienger S.A. is a major manufacturer for Peugeot. My duties were to map the manufacturing flow within the company and to design a new intranet for upgrade purposes.

Education

Since October 1997
Computer Science and Information Systems Department, University of Limerick, Limerick. Ireland
PhD in Parallel Computing and Evolutionary Algorithms
Expected graduation Dec 2004.
My research combines the Evolutionary Algorithms and the Parallel/Distributed Computing fields with a novel tool for program automatic parallelisation. Paragen is a tool for converting sequential legacy programs into functionally equivalent parallel programs. It is using a transformation-based evolutionary algorithm in order to achieve the program's parallelisation.

Oct 1996 – Jun 1997
Computer Science Department, "Politehnica" University of Bucharest, Bucharest, Romania
M.Sc. in Parallel and Distributed Computing
The research contribution for this degree was in the field of high-speed networks. It contained a complex overview of available technologies (ATM, Gigabit Ethernet etc.) with their applications in distributed computing.

Sep 1991 – Jun 1996
Computer Science Department, "Politehnica" University of Bucharest, Bucharest, Romania
B.Sc. in Computer Networks
My dissertation for the B.Sc. degree was "Routing in Computer Networks using Genetic Algorithms" and it

presented a proof of concept on using genetic algorithms for static traffic routing in computer networks. GPA 3.75

Sep 1987 – Jun 1991
Informatics High School, Bucharest, Romania
Top 20% of graduates.

Other education   April 2001
College of Business, University of Limerick, Limerick, Ireland
Training in Project Management

1995 – 1996
Languages Department, "Politehnica" University of Bucharest, Bucharest, Romania
American Business English

Feb 1996 – Jun 1996
CRESA Mulhousen, France
TEMPUS Scholarship
Classes in Marketing, Management, Statistics.

Papers   2003   **Characteristics of the Informatics' Clones**
TBA
Metrics for the Structure of Informatics System
TBA
A Metric for Auto-parallelisation Feasibility of Programs
TBA
2001   **Automatic Map Labelling System using Genetic Algorithms**
IE 2001 Economic Informatics Symposium, Bucharest, Romania
2000   Co-Speaker with Dr. Conor Ryan in the tutorial entitled "**Automatic Parallelisation using Genetic Programming**" - GECCO, Las Vegas USA

1999 **Evolution of Equivalent Parallel Programs: Sequences and Iterative Instructions**
Late Breaking Papers, GECCO, Orlando USA

Evolving Equivalent Parallel Programs: Sequences and Iterative Instructions
Conference, PDPTA, Las Vegas USA

Evolving Equivalent Parallel Programs: Sequences and Iterative Instructions
Poster Session, PDPTA, Las Vegas USA

Evolving Equivalent Parallel Programs: Sequences and Iterative Instructions
Conference, SCASE '99, Limerick IRELAND

Automatic Discovery of Program Transformations for Parallelisation
Late Breaking Papers (and Poster session), EuroGP, Gothenburg SWEDEN

Evolving Equivalent Parallel Programs
IE'99 Economic Informatics Symposium, Bucharest ROMANIA

Automatic Parallelisation of Sequential Programs using Genetic Programming
Conference, AROB, Oita JAPAN

1998 **Automatic Parallelisation of Loops in Sequential Programs using Genetic Programming**
Poster session, GP'98, Madison USA

Automatic Parallelisation of Loops in Sequential Programs using Genetic Programming
Conference, GP'98, Madison USA

Automatic Parallelisation of Loops in Sequential Programs using Genetic Programming
Graduate Student Workshop, GP'98, Madison USA

Automatic Discovery of Program Transformations for Parallelization
Conference, PDPTA, Las Vegas USA

Automatic Discovery of Loop Transformations for Autoparallelisation
Late Breaking Papers, EuroGP, Paris FRANCE

1997 **Assembly Language Puzzlebook**
Edited by the Academy of Economic Studies Press (Bucharest), ROMANIA

Re-Engineering prin descoperirea automata a transformarilor aplicabile pentru paralelizare
Revista de Informatica Economica (Economic Informatics Journal), in romanian, Bucharest ROMANIA

Image Compression using Genetic Algorithms
IE'97 Economic Informatics Symposium, Bucharest ROMANIA

Current Projects

KDE enhancements
KDE is an integrated desktop solution for UNIX based environments built using Trolltech's Qt library. I am an active member of the development community ever since starting the Magellan project. I have contributed UI enhancements to the project aiming to improve the user's visual experience.

Paragen
Parallelisation of sequential programs using evolutionary techniques. This project is part of my PhD research and combines evolutionary algorithms and parallel and distributed programming techniques. It is part of S.C.A.R.E. (Soft Computing And Re-Engineering) project. The objective of the project is to create a parallelisation tool for legacy code re-engineering.

Computer Aided Study
An intelligent system for on-line evaluation of knowledge and reaction designed for 3-rd level (electronic engineering) students. This project is part of a PhD research conducted in Babes-Boliay University in Cluj, Romania. It is designed to iteratively provide information and subsequent evaluation of it acquirement by students.

Recent Projects

Magellan (and Arkteon)
This project aims to be a full UN*X groupware environment. I am participating to this project for extending my skills in UN*X programming (C/C++, Qt, KDE etc) as well as using my extensive knowledge in both Computer Networks and Distributed Computing fields. Also I am the main art contributor to the project.

Inca
Inca is developed as an open source alternative to current commercial installation packages (e.g. Install-Shield). It is a very good opportunity to use my programming skills as well as the network communications knowledge.

Other Projects	**Graduation Project** Routing the Computer Networks using Distributed Genetic Algorithms
	Electronic Devices Temperature controller
	Data Structures and Algorithms Extended MetaFile editor (Microsoft Windows version)
	Computer Architecture Project of Von Neumann Computer Architecture
	Formal Languages and Translators C/C++ Preety-Printer (lint) with syntax error detection
	Graphic Systems Texture mapping, rendering and anti-aliasing algorithms
	Operating Systems Memory Management Kernel (Round Robin algorithm)
	Mathematical Bases of the Computers Essay on Neural Networks and Parallel Computing Simulation on Computer Networks

Professional Interest:

- Embedded systems
- COM Technologies
- Data Transmission Technologies
- Interconnecting Routing Algorithms
- Parallel and Distributed Computing
- Compilers and Programming Languages
- Image and Sound Processing
- Compression Algorithms
- Operating Systems
- Distributed Databases
- Neural Networks applications on Computer Networks (Partial Recognition)

Skills	• Extensive programming experience with C/C++ with major DOS and Windows 95/98/NT/2000 C/C++ compilers (Borland, Microsoft, Watcom, GCC), Pascal (including parallel pascal), assembly language in x86 and compatible platforms (real and protected modes),

- Comprehensive knowledge in Evolutionary Algorithms and Parallel and Distributed Systems,
- In-depth knowledge of Java development and design,
- Hands-on experience in interpreted languages (e.g. shell scripting, python, scheme),
- UML,
- Experience in programming GUI interfaces (MS Windows and UN*X environments),
- Solid knowledge of MS-DOS, UN*X (Linux, DEC-OSF, Solaris) operating systems,
- Knowledge of product life-cycle,
- Windows (3.1, 95/98, NT, 2000) - System Administration, usage and development,
- Extended knowledge in web design (HTML, CSS, JavaScript), Macromedia (Dreamweaver, Freehand, Flash), NetObjects Fusion and Microsoft Front Page,
- Strong image processing skills. I have worked with popular tools like Adobe (Photoshop, Image Ready, After Effects), Corel (Corel Draw, Corel Photo Paint), Kinetix Discreet (3D Studio/Max), AutoDesk AutoCAD, MetaCreations (Kai's Power Tools, Kai's Power Goo), Gimp, De-Babelizer,
- Software testing experience,
- Knowledge of ORACLE system,
- Knowledge on RSX systems,
- Analyst Programmer License since 1991,
- Excellent team player,
- Project management and vision,
- Fast assimilation of new ideas.

Personal Details

- Languages: Romanian, English, French, German
- Interests: Painting, drawing, Music, Sport (tennis, basketball, soccer, table tennis, jogging), Math (geometry, fast Fourier applications, trigonometry)
- Full driving license since 1994
- I am member of ADSE (Association for Development through Science and Education) since May 2000. ADSE is an academic association of college professors, scientific researchers and students aiming to develop educational and research programs.