



Europass curriculum vitae

Personal information

Tibor Pálincás

address: [removed], 1041, Budapest, Hungary

email: prog (a) igor2.repo.hu

web: <http://igor2.repo.hu/profile.html>

instant messaging: IRC: server=repo.hu:6677; channel=#gpmi; nick: Igor2

date of birth: 1979-12-20

gender: male

Job applied for

Software Developer, Specialist

Work experience

2006-09-01 .. present

Software Developer, Specialist, Team Leader

CAE-Engineering Kft, 28 Ráth György utca, 1122 , Budapest , Hungary

- programming real-time flight simulation components
- software interface between flight sims and hardware
- developing automated test systems for flight sim modules
- developing software and/or hardware interface for avionic buses: Arinc429, MIL-STD-1553 (aka. milbus)
- debugging Linux driver/kernel issues
- designing and developing portable software for Linux, Windows and a range of 90's proprietary UNIX systems
- designing and implementing network protocols
- hardware design (schematics, PCB) for interface circuits
- firmware design and implementation for interface circuits
- the complete hardware design and firmware for an RFID based entry system (currently in use in the office)
- prototyping PCBs
- developing/maintaining a wide-range of in-house tools and utilities, from text processing to training web site
- participating in an in-house training program as a teacher, maintaining courses covering different aspects of programming
- leadership of teams of 3..10 developers

Education and training

1998 .. 2006 MSc. in Mechanical Engineering EQF level 7

Budapest University of Technology and Economics,

- "IT for Mechanical Engineers"
- "Optics and precision mechanics"

1994 .. 1998 Secondary school EQF level 3

Mechwart András Vasúti Szakközépiskola és Gimnázium (Railway Mechanical Engineering),

- "Mechanical Engineering"
- "Focus on railway"

1986 .. 1994 Primary school

Hartyánközi Általános Iskola,

Personal skills

Mother tongue(s) **Hungarian**

Other languages

language	understanding		reading		writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C2	C2
	Budapest University of Technology and Economics				

Communication skills

- Ability to present/communicate technical aspects in an easy to understand form to non-engineers, customers
- Ability to present a complex subject in a structured document; experience in developing training courses
- Ability to process specifications, model and translate real-life problems to software and/or test specification

Organisational skills Experience in leading small teams

Driving license B

Programming languages and
libs

- **C:** 15 years; ANSI C89, ANSI C99, portability issues; 4 years on AVR
- **UNIX:** socket/network programming, IPC/multiprocess programming
- **awk:** 15 years; deep knowledge of language/interpreter internals, maintaining my own fork of MAWK
- **make:** 15 years; aware of standards and implementation differences and experience applying make on large projects
- **sh:** 15 years; aware of portability issues, bash vs. POSIX sh, old Bourne shell
- **parser generators:** 10 years; lex/flex, yacc/bison
- **pascal:** 8 years; on DOS, in the '90s)
- **assembly:** 4 years of x86 up to Pentium I; 4 years of pic16; minor experience with AVR asm and TI980B)
- **BASIC:** about 6 different dialects of the '80s microcomputers
- **GUI:** minor experience with gtk and sdl
- **exotic shell and non-ANSI-C dialects:** experience in strange/old systems from the '80s and '90s
- **exotic scripting languages:** tcl (tcl/tk, eggdrop), minimal experience with scheme, lua and nasal
- **ps:** minor experience in writing/generating PostScript, including the functional programming aspects

Network and bus protocols,
interfaces

- **http, smtp, irc:** have written client and/or server, can "speak" them (using telnet/netcat)
- **HO710:** Hameg's combinoscope RS232 protocol; wrote CLI tool for remote controlling my scope
- **Arinc429:** electronics and firmware for an Arinc-RS232 converter
- **pop3, imap:** aware of the basic concepts
- **iCalendar:** developed a tool to automate/script some processes triggered from calendars
- **mcp2200:** Linux support for configuring the device and driving the GPIO
- **AT/PS2:** subset of the keyboard protocol (developed electronics and AVR firmware)
- **CAN:** debugging CAN<->ethernet gateway device
- experience in understanding, reverse engineering and debugging custom text and binary protocols
- designed and implemented different network protocols over TCP, UDP, and various serial lines

other languages and formats

- **html:** generating or manually writing documents in raw html
- **pcb:** firm understanding of geda/PCB (PCB editor) file formats
- **sch:** firm understanding of geda/gschem (schematics editor) file formats
- **Gerber:** minor experience; developed converter from Gerber to text
- **SPICE:** minor experience in generating and manually writing SPICE circuits and models for ngspice
- **wav, png, jpg, pnm, pbm:** experience in processing and generating basic sound and pixel graphic files
- **osm, gpx, NMEA:** familiar with the OpenStreetMap data model and xml, and some standard GPS related formats; developed tools to process/generate them
- **HPGL:** minor experience; developed vector gfx converter to an old IBM pen plotter
- **sgml:** experience with docbook-sgml
- **graphviz:** generate or manually maintain graphviz documents
- ***roff:** able to write groff/troff, pic(1), eqn(1)

Challenge24

- Challenge24 (<http://ch24.org>) is the International 24-hour Programming Contest
- participated as a **contestant** between 2006 and 2009; best result: 16th place
- participated as an **organizer** between 2010 and 2014
- main responsibility was designing, developing and documenting the problem set, in a team
- designed and implemented most of the **hardware tasks**, including a **laser cut CNC machine** for the final round of 2013
- participated in design, implementation, testing and documenting efforts of many image processing, sound processing, networking and AI-related problems
- designed and implemented many programming languages, virtual machines and file formats and protocols for the tasks
- also contributed in building the network, the server farm, communication with the contestants and scripting the official video of the 2013 finals

IT-related misc

- **svn:** firm understanding of the workflow and the CLI, experience in server-side administration, svn-based automation of releases, using svn as database
- **Contribution to the Open Source movement:** releasing all the software and hardware made in free time; contribute bugreports, bugfixes to open source projects
- **Linux kernel:** minor experience in debugging drivers, and developing tiny modules
- **Porting:** developing portable software, experience in porting to BSDs and proprietary UNIX systems of '80s and '90s and cross compiling to windows
- Debian packaging and maintaining in-house Debian repositories
- **OpenStreetMap:** I'm an *addicted mapper*; using GPS assisted field surveys I've contributed address interpolation net for the 4th and 13th districts of Budapest; digitized more than 37000 building polygons from aerial images

Other skills and competences
(hobby)

- software development
- **electronics**: small designs with microcontrollers, digital circuits, very simple analog circuits; home-made prototypes
- **"craftsmanship"**: milling, drilling, filing, metal casting, woodworking
- riding my bike, often combined with OpenStreetMap field surveys
- organizing programming contests
- reading novels