

Curriculum Vitae: Tomi Junnila

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Professional Skills

- Software design**
- Object-Oriented Design
 - Low level driver design
 - Qt C++ framework
 - Some plain Win32 API experience
 - Windows Phone application design (C# & XAML)
 - Web application design (ASP.NET MVC, PHP)
 - Windows application design (WPF, Delphi)
 - Database design and administration (SQL Server, PostgreSQL, MySQL)

Programming languages	Assembly	ARM: extensive, TMS320C55x: some, x86: some
	bash	good
	C	extensive
	C++	extensive
	C#	several years
	Delphi	several years
	Java	some
	Javascript	some
	perl	some
	PHP	several years
	Python	some
	Ruby	limited
	Tcl/Tk	limited
	tcsh	some
	Verilog	some
	VHDL	extensive

	XSLT	limited
SoC design		<ul style="list-style-type: none"> • Several SoC integration projects, including subsystem integration responsibility. • Trace & Debug architecture, including ARM CoreSight and standardization work (MIPI Debug Workgroup, USB Debug Framework)
SoC verification		<ul style="list-style-type: none"> • SoC co-verification software design (C, C++ and assembly mostly for ARM and TMS320C55x processor cores) • SoC co-simulation wakeup responsibility • IP-level test bench development for reuse in ASIC-level verification • Production test vector creation and validation
IP design		<ul style="list-style-type: none"> • MIPI System Trace Protocol design, implementation and verification • Architectural design for IP for trace over USB • 3GPP Rel 1999 Searcher IP implementation and verification

Work History

2008–present **Owner, Other Alien Software**

- Developing accounting, woodworking material shopping, and on-board ship stability software in C# on the Windows and Windows Phone platforms

2007–2012 **Staff Engineer, SoC verification, STMicroelectronics / ST-NXP Wireless / ST-Ericsson**

- Industry standardisation
 - Company representative in the MIPI Debug Workgroup, and the USB Debug Framework
 - Author of the MIPI System Trace Protocol v2, MIPI Debug Adaptor for USB, and MIPI Debug Adaptor for UniPro
- SoC verification
 - Verification platform architecture and design in ARM assembly language, C and C++
 - Verification planning
 - Software implementation
 - SoC wake-up
- SoC architecture design
 - Participated in Trace & Debug architecture design
- IP architecture design
 - Trace & Debug IPs:
 - MIPI System Trace Protocol v2
 - Trace Memory Manager for USB
 - MIPI SneakPeek Protocol

1998–2007 Digital ASIC Design Specialist, Nokia Technology Platform

- Industry standardisation:
 - Participating in the MIPI Debug Workgroup (then Trace & Debug Workgroup)
 - Author of the MIPI System Trace Protocol v1
- SoC verification:
 - SoC co-simulation wakeup responsibility
 - Mostly in C and ARM1176JZF-S and TMS320C55x assembly languages
- SoC subsystem integration
- Production test vector creation and validation
- IP design:
 - 3GPP searcher module
 - System trace interface (including standardisation work into MIPI STP)
 - Module-level test bench development for reuse in SoC-level verification
- Patent
 - "A method for time-stamping messages", awarded 2008, with Ossi Lindvall (in use in the MIPI System Trace Protocol)

1997–1998 Software Designer, Ship Consulting Ltd Oy

- Developed on-board ship stability software used on approximately 30 vessels worldwide

1996–1998 Linux System Administrator, Nisamest oy

- Maintained the company's public web server

1992–1996 Software Designer, TOP-Case ky

- Developed accounting and personal finance software in C, C++, Delphi, and x86 assembly language
- Technical support for Proxim wireless local area networks)

Education

2002– University of Turku, student in Computer Science

1993–2001 University of Turku, Master of Science in Electronics and Information Technology
Minor subjects: Physics, Mathematics and Computer Science
Master Thesis titled "Designing a Rake Receiver for the Common Pilot Channels in 3GPP" (2000), eximia cum laude approbatur.

1990–1993 Tuurepori secondary school, Turku, Finland. Bacculaureate spring of 1993, laudatur.

Military Service

1994–1995 Signal corps, current rank lieutenant (reserve).

Responsible Positions

2004–2007 Turku Science Fiction Society, treasurer (2004–2006), board member (2004–2007)

1997–2008 Science Fiction Culture Cabinet at the University of Turku, treasurer (1997–2008), secretary (2006)

2001–2003 Finncon X - Eurocon 2003, member of the organizing committee

1998–2000 Turku Medieval Society, chairperson

1997–1999 Finncon 1999, secretary of the organizing committee

1998 Turun yliopiston rooli- ja strategiapeliseura Tyrmä, treasurer

Language Skills

English Excellent

Finnish Native

French Poor

Swedish Poor

Family

Marital Status Married

Children 2 children, born 2004 and 2010