Curriculum Vitae



First name & Surname

Tomáš Pop

Nationality & Year of Birth

Czech (Czech Republic), 1984

Contact and more information

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Summary

R&D software engineer and former computer science researcher with a strong implementation experience. Specialties: mobile devices, embedded systems, system programming. Passion for mobile & embedded systems design, system integration and optimization, sensors and data processing. Former strong interest in adaptive/context aware software architectures.

Education and training

Degree & dates | Ph.D. (awarded by title Ph. D. in September 2013)

Organization

Charles University in Prague (UK), Faculty of Mathematics and Physics (www.mff.cuni.cz), Dpt. Distributed and Dependable Systems, (link)

Principal subjects

Computer Science / Software Engineering (Component systems, Adaptive/Context-aware architectures, Embedded and Mobile Devices)

Ph. D. thesis title and topic

"Components and Services in Resource Constrained Environments" (<u>link</u>), focus on embedded and mobile environments.

Degree & dates

Masters and Bc. (Bc. in 2006, Mgr. In 2008, RNDr. in 2011)

Organizations

Charles University in Prague, Faculty of Mathematics and Physics (www.mff.cuni.cz), Master Thesis at Mälardalen Research and Technology Centre, Sweden, (www.idt.mdh.se)

Principal subjects

Computer Science / Software Engineering (Grammars, Data Structures & Algorithms, Graph theory, Math. logic, Complexity, Probability & Statistics).

Master and Bc. theses

"The PROGRESS Runtime Architecture" (@mdh.se, @cuni.cz), "Cryptography and its application in secure data transfer" (in Czech, link)

Work experience

Organization

Electrolux group, Global technology and connectivity department. *Czech Republic/ and Thailand.* <u>electroluxgroup.com</u>.

Positions and Dates

Connectivity system architect (07/2018 onwards)

Technical lead, connectivity integration for Asia-Pacific (07/2017 - 06/2018) Firmware engineer - connectivity & security (09/2016 - 07/2017)

Responsibilities

Development: firmware (connectivity boards), mobile device SDKs, apps. **Knowledge transfer and technical leadership in Asia-Pacific** (Long term assignment, including training of local QA team, preparations of connectivity related processes on production lines, defining, following and evaluating data from first field tests). **System design:** proposing, evaluating and coordinating extensions and changes in several components (FW, mobile SDK, backends, configurations) of connectivity ecosystem.

Position

R&D Android full-stack engineer

Dates & Organization

2016. Avast! Anti-virus, Czech Republic, avast.com.

Responsibilities

Android full-stack (low level observers, kernel, applications)

Position

R&D software engineer for mobile devices

Dates & Organization

2013 – 12/2015, Sensirion A.G., 8712 Staefa ZH, Switzerland, sensirion.com. Android, Java, Android HAL, C, Linux, Python, Linux kernel, Qualcomm DSP

Technologies and languages

Research, prototyping and implementation of software components needed for sensor integration into mobile, embedded and IoT devices.

Responsibilities

- Android integration (including HAL extensions, services, applications)

- Drivers (Linux, Qualcomm DSP) and low-level/streaming algorithms.
- Device interaction logic with Sensirion servers (example web application)
- Customer-side support in Asia and United States, 3 months in Sensirion US
- Intense work e.g., with Galaxy S4, Note 3 (humidity/temperature sensor)

Position

Researcher and teaching assistant at D3S MFF UK and RDC CVUT

Dates & Organization

2008 – 2013, part of PhD studies. Charles University in Prague, Department of Distributed and Dependable Systems (www.d3s.mff.cuni.cz), R&D Center for Mobile Applications, Czech Technical University, Prague (www.rdc.cz)

Technologies and languages

C, Java, Python, Android, Linux, Solaris, eCos RTOS, xml-rpc, SS7, ...

Selected Projects

- SOFA HI: Modification of a component system for embedded devices
- The PROGRESS Runtime Architecture (ProCom RT environment
- Amobisense: Context sensing/data collection platform for Android system
- SS7Box: Live GSM Network signaling tool

Teaching and tutoring

Advisor of 5+ Master and Bachelor theses. Assistant at University (Introduction to Unix, Recommended Programming Practices, Web development, C# and .NET Technology, Cloud technologies – AWT part)

Notes

Publications, sources and projects are listed in appendix / my thesis (link).

Former Positions

Web application developer, Outdoor Sports Instructor

Language Skills

- Czech (native), English (full professional prof.), German (working/prof p.)

Personal Interests

Sports (climbing, running, MTB, orienteering, adventure racing), science, traveling, culture. Red Cross (Czech amateur first aid representation team in 2004 and 2008 in First Aid Convention Europe)

Appendix A - Selected Publications (full list scholar.google.com/citations?user=HI2N7-gAAAAJ)

(1) Michal Ficek, Tomáš Pop, Kateřina Dufková, Petr Vláčil, Lukáš Kencl, Martin Tomek: Performance Study of Active Tracking in a Cellular Network using a Modular Signaling Platform. MobiSys 2010.

(2) Petr Hošek, Tomáš Pop, Tomáš Bureš, Petr Hnětynka, Michal Malohlava: Comparison of Component Frameworks for Real-time Embedded Systems. CBSE 2010, extension accepted for publication in Knowledge and Information Systems (KAIS)

(3) Tomáš Pop, František Plášil, Matěj Outlý, Michal Malohlava: Property Networks Allowing Oracle-based Mode-change Propagation in Hierarchical Components. CBSE 2012

(4) Michal Ficek, Pop.T, LukášK Kencl: Active Tracking in Mobile Networks: An In-depth View, The International Journal of Computer and Telecommunications Networking (COMNET), 2013

Appendix B – Patents

(1) David Hasenfranz, Michel Kiinzer, Moritz Koehler, Tomas Pop, Andrea Sacchetti: Computerized method and hardware component for deriving step count from a pressure sensor

(2) Filip Havlicek, Hiram Lew, Tomas Pop, Pablo Sole: Observation and Classification of Android Binder Events

Appendix C – Published code with my contribution

Although most of my work remains internal and IP protected, I contributed to several publicly available apps and open-source projects

- Amobisense (github), com.sensirion.smartgadget, com.avast.android.mobilesecurity
- My infrequent Linux kernel contribution at kernelhub, my profile at stackoverflow and github
- Some of my older code is at github, my university profile, Sensirion opensource code and atmel gallery

Curriculum Vitae Tomáš Pop, 11/18/18