Curriculum Vitae

PETER **KÄLLSTRÖM**

PHONE
+46 (0)704-35 26 06
Email
peter.kallstrom@bespokecode.se

Peter has worked with embedded systems since graduation from university at 2004. First employed at *Ascom* the software development was mainly in C/C++. Around 2007 Peter began specializing in WiFi, specifically Voice-over-WiFi for the enterprise, which requires high level of security, reliability and performance.
At 2008 Peter founded a company for mobile application development, mainly for the iPhone and Android platforms. This later resulted in a partnership in the larger company *MadinSweden*. After a couple of successful years Peter co-founded the more focused company *Bespoke Code*. During these later years Peter has developed a deep knowledge in app development for both iOS and Android as well as backend systems running in server environments and in the cloud.

Competence

Product Areas
- Android, iOS
- Web services in Linux environments
- Embedded systems
- WiFi

Tools/Methodology/Technology
- Obj-C, Java, C/C++, Ruby
- iOS / Android SDK
- Design patterns/Anti design patterns
- Unit testing
- Static code analysis
- Scrum
- WiFi - 802.11a/b/g/n/d/e/h/i/k and WMM, WMM-PS
- Ruby on Rails
- REST

Roles
- Software engineer
- Project leader
- Business developer

Customers
- IKEA (Through Forsman & Bodenfors)
- Tele2 (Through F&B)
- Reebok (Through F&B)
- Volvo (Through F&B)
- SKF (Through F&B)
- Ascom
- Tine (Through McCann)

Education

Academic
- M.Sc. Computer Science and Engineering

Courses and certificates
- Embedded Linux - Enea
- Design patterns - Combitech
- CWNA / CWNP
- Professional Scrum Master

Languages
- Swedish - native
- English - fluent

Employments
- Bespoke Code 2013 - Present
- MadinSweden 2011 - 2014
- Roundspot 2008-2011
- Ascom 2003-2011

Watchword
- Focus on the purpose of the system rather than specific details
- Prioritize quality before number of features

Experience

2014 Consultant at Ascom

Peter is responsible to implementing several apps and background services in Ascom Myco, a truly purpose-built smartphone for healthcare. The work has also involved improvements to the customized Android platform which the smartphone is build upon.

2013-2014 Architect and developer of a highly scalable backend system

During this period Peters company focused on developing the worlds most advanced live score tracking app for tennis. The iOS app was optimized to handle a large amount of sports data and to present detailed information in an easy and intuitive way to the end users.
The backend system was designed in Ruby on Rails and ran on three virtual servers in Amazon's cloud services. The system was highly optimized to be able to feed thousands of simultaneous app users with minimal response times (down to played ball-by-ball in simultaneous played tennis matches). The system was designed and build to last:

- Optimized version of MySQL database server (Percona) on a dedicated server instance
- Optimized version of Ruby on Rails improving memory and process handling
- Lightweight Nginx web server with the Passenger plugin to run RoR
- Varnish Cache to lift the most weight of the RoR system
- Separate daemon services fetching and parsing sports data

2010-2013 Software developer and project leader for mobile apps

Peter had a key role in several app projects such as:

- Volvo Worldtrucker (Android)
- Volvo XCTravels (iOS, Android)
- IKEA Kondis (iOS)
- IKEA Skål (iOS)
- Reebok The Promise Keeper (iOS, Android)
- Västtrafiks Tram Sightseeing (iOS, Android)
- Tele2 Franks Prank Call (Android)
- SSRS Kustväder (iOS, Android)
- Melodifestivalen 2011 (iOS, Android)
- TINE IsKaffe (iOS, Android)
- Kvikk Lunsj Søndagstur (Android)

In these projects Peter helped in improve the app ideas, had frequent meetings with the advertising agencies and their customers.
Peter also designed and developed backend systems to feed many of the apps.

Many of the app projects required knowledge in a lot of different areas:

- Positioning of a user optimized on precision, battery life and responsiveness.
- Design of secure and lightweight communication protocols and data structures in MySQL/Sqlite.
- Handling of phone calls in Asterix PBX.
- Scanning and handling of QR codes.
- Video streaming to mobile devices via e.g. HTTP Live Streaming.
- Advanced UI customization.
- Language and region handling
- Design and implementation of REST protocols.

2009-2011 WiFi specialist at Ascom

Peter was responsible for the implementation of the WiFi functionality in Ascom's second generation Voice-over-WiFi phone i62. The solution was based on a System-on-Chip with a Linux driver. The driver was ported to the proprietary operating system and was adapted to meet enterprise environments.

During the end of the project Peter educated the support team in how the WiFi related parts worked and how to debug and analyze problems. Peter also traveled to several customer sites for verification and troubleshooting.

The biggest challenge to make this project successful was to get the WiFi functionality to fulfil the quality required in an enterprise environment, usually hospitals, where a missed or dropped call could cause severe implications. Peter had regular meetings with the Indian WiFi chip supplier to follow up on all requirements Ascom put on the solution. Peter also travelled to the WiFi supplier and helped their development team to meet the high quality and enterprise features required.

2004-2008 Software Engineer at Ascom

Developed many parts of Ascom's first Voice-over-WiFi phone, i75, such as: messaging, drivers, indoor positioning integration with Ekahau, and more.
At the end of the i75 project Peter focused on the wireless communication via WiFi. This involved deep analysis of the 802.11 standards and optimizations of e.g. roaming behavoir.