

# Timm Knape

*Senior Software Architect*

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<b>Name</b>	Mr. Timm Knape
<b>Profession</b>	Senior Software Architect
<b>Year of birth</b>	1972
<b>Place of birth</b>	Kelkheim/Ts.
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## Business Interests

- ▷ realizing complex software projects in an agile but orderly fashion
- ▷ generating functional tests out of requirements
- ▷ lean but complete documentation
- ▷ optimization of existing computer systems
- ▷ functional and object-oriented analysis and implementation

## Industries

- ▷ Medical Devices
- ▷ Event Technologies
- ▷ Financial Services
- ▷ Telecommunication

## Projects

**Project** Cyber Security Support  
**Duration** 10/2022 – 06/2023  
**Industry** Medical Software  
**Function** Cyber Security Consultant

support the development of a cyber security concept of an embedded solution

Tasks:

- ▷ review documentation
- ▷ search for security leaks

*HTML, Transport Layer Security (TLS), Public Key Infrastructure (PKI), Elliptic Curves, Advanced Encryption Standard (AES-256)*

**Project** Support a Design team  
**Duration** 07.2022 – 12.2022  
**Industry** es  
**Function** Scrum Master

support a design team in using the Scrum method

Tasks:

- ▷ support planning
- ▷ support Product Owners
- ▷ holding Retrospectives

*Scrum, Figma, Jira, Confluence*

**Project**    **Creation of an Embedded Software Architecture**  
**Duration**   **07/2017 – 11/2021**  
**Industry**    **Event Technologies**  
**Function**    **Senior Software Architect**

define and implement a Software Architecture for digital audio and lighting products

Tasks:

- ▷ lead the Software R&D team
- ▷ design and implement Architectures for different Microcontrollers
- ▷ coach team members to implement Test-Driven Development (TDD) and to use Version Control Systems (VCS)
- ▷ project management for frontend team using Unity 3D
- ▷ improve Product Live Cycle Process
- ▷ establish PRINCE2 Project Management Processes

*C/C++, C#, Unity 3D, Linux, FreeRTOS, Sigma Studio, Git, Gitea, HTML, JavaScript, CSS, Espressif ESP32, STM32, WLAN, Bluetooth (LE), TCP/IP, HTTP, Websocket, I<sup>2</sup>C, I<sup>2</sup>S, UART, PRINCE2, Scrum, SharePoint, Teams*

**Project**    **Technical Architecture of a Data Warehouse**  
**Duration**   **09/2015 – 06/2017**  
**Industry**    **Financial Services**  
**Function**    **Lead Engineer, Technical Architect, Deputy Team Lead**

Technical Architecture for Regular Reporting platforms

Tasks:

- ▷ deputy lead of the Technical Architecture team
- ▷ design technical solutions
- ▷ debugging database problems

*Oracle PL/SQL, Java, IntelliJ IDEA, ANTLR, CVS, Git, Jira, Confluence, SharePoint*

**Project**    **Develop iOS apps**  
**Duration**   **08/2013 – 09/2015**  
**Industry**    **Financial Services**  
**Function**    **Scrum Master, Process Modeler, Developer**

develop tablet apps to support field staff visualizing financial relationships

Tasks:

- ▷ coordinate teams with Scrum process
- ▷ evaluate requirements
- ▷ implement work packages
- ▷ design work on processes and model them in Jira
- ▷ convert Java kernels to Objective-C
- ▷ designing and presenting solution strategies
- ▷ implement interfaces to Java backends

*Xcode, AppCode, Webstorm, Objective-C, Java, Jenkins, Git, Assembla, Jira, Confluence, Scrum, Kanban, OpenGL, JSON, XML*

**Project**    **Enhancement of the Online-System**  
**Duration**   **11/2011 – 08/2013**  
**Industry**    **Financial Services**  
**Function**    **Scrum Master, Developer**

a rich-client system allows the field staff to manage contacts, emails, calendar events and tasks

Tasks:

- ▷ init Scrum process
- ▷ evaluate requirements
- ▷ implement work packages

*Eclipse, Java, Tomcat, CVS, Git, Swing, XML, Maven, Ant, Hessian, Oracle, PL/SQL, HTML, CSS, Python*

**Project**    **Homepage Creator**  
**Duration**    **02/2011 – 08/2011**  
**Industry**    **Financial Services**  
**Function**    **Developer**

field staff can configure their own websites with embedded movies and animations

Tasks:

- ▷ evaluate requirements
- ▷ implement work packages
- ▷ implement Flash player

*Java, Flash, JSF, Tomcat, Oracle, JavaScript, CoffeeScript, jQuery, Primefaces, Maven, CVS, HTML, CSS, REST*

**Project**    **Analysis Tool**  
**Duration**    **10/2008 – 2/2010**  
**Industry**    **Telecommunication**  
**Function**    **Developer**

a Rich Client Platform (RCP) solution allows business clients to create and filter call reports

Tasks:

- ▷ evaluate requirements
- ▷ implement requirements
- ▷ improve database queries

*Java, Eclipse, RCP, SWT, Derby, Subversion, XML*

**Project**    **Infrastructure of Billing System**  
**Duration**   **5/2006 – 10/2008**  
**Industry**    **Telecommunication**  
**Function**    **Developer**

maintenance of the infrastructure components of the Billing System

Tasks:

- ▷ evaluate requirements
- ▷ implement requirements
- ▷ analyze crashes with compiler developers from HP
- ▷ analyze crypto libraries

*C++, Oracle, PL/SQL, PVCS, Itanium Assembly Language, HP/UX, Solaris*

# Jobs

**Duration** since 2021  
**Branche** Medical Devices Development

team lead

Tasks:

- ▷ workload planning
- ▷ lead developer
- ▷ support project management
- ▷ support acquisition team
- ▷ support test team
- ▷ support quality team
- ▷ support system architecture

*C/C++, C#, Embedded Linux, Git, HTML, JavaScript, CSS, WLAN, Bluetooth (LE), TCP/IP, HTTP, Cyber Security, Scrum, Teams, DIN EN 13485, DIN EN 62304*

**Duration** 2017 – 2021  
**Branche** Event Technologies

Tasks:

- ▷ create embedded architectures for audio and lighting products
- ▷ setup software R&D team
- ▷ present new technologies to the Senior Management

*Augmented Reality, HTML, JavaScript, CSS, C/C++, C#, Git, Gitea, Linux, FreeRTOS, REST, Websockets, SHA-1, Bluetooth, WLAN, TCP/IP, I<sup>2</sup>C, I<sup>2</sup>S, UART, SharePoint, Teams, Unity 3D, PRINCE2, Scrum, SharePoint*

**Duration** 2008 – 2018  
**Branche** iOS Development

Tasks:

- ▷ develop iOS apps
- ▷ setup software R&D team
- ▷ implement encryption software in Java and JavaScript

*AES-256, SHA-512, Xcode, AppCode, Objective-C, C++, Java, JavaScript, HTML, CSS, REST, SQLite, Ruby, Scrum*

**Duration** 09/2015 – 06/2017

**Branche** Financial Services

Tasks:

- ▷ deputy team lead of the Technical Architecture
- ▷ create software designs
- ▷ debugging database applications

*Oracle PL/SQL, IntelliJ IDEA, CVS, Git, Java, Jira, Confluence, Scrum, SharePoint*

**Duration** 06/2002 – 09/2015

**Branche** Software Consulting

Tasks:

- ▷ work in projects for different clients



## Experiences

<b>Computer Languages</b>	<i>C++, C, C#, JavaScript, Swift, Objective-C, Kotlin, Java, Perl, bash, PHP, Ruby, Python, Assembly Language (RISC-V, Intel, ARM, Motorola), Scheme, Lisp</i>
<b>Markup Languages</b>	<i>HTML, XML, CSS, UML, troff, T<sub>E</sub>X, JSON, Markdown, AsciiDoc</i>
<b>Databases</b>	<i>Oracle, PostgreSQL, MySQL, SQLite, Derby</i>
<b>Operating Systems</b>	<i>Linux, Mac OS X, Windows, FreeBSD, HP/UX, AIX, Solaris</i>
<b>IDEs</b>	<i>CLion, Eclipse, Xcode, AppCode, Visual-Studio Code, VisualStudio, IntelliJ IDEA, WebStorm, PyStorm, Rider</i>
<b>Versioning Control</b>	<i>Git, Subversion, Surround, CVS, RCS, PVCS</i>
<b>Collaboration</b>	<i>Jira, Confluence, Assembla, trac, Bugtraq, Mediawiki, Helix, Teams, Share-Point</i>

## Languages

<b>English</b>	fluent
<b>French</b>	basic knowledge

## Education

<b>02/2021</b>	Audinate Dante Certification Level 1–3
<b>07/2010</b>	Professional Scrum Master
<b>04/2009</b>	PRINCE2 Foundation
<b>Diplom Informatik</b>	Goethe Universität Frankfurt
<b>Vordiplom Informatik</b>	Goethe Universität Frankfurt
<b>Vordiplom Mathematik</b>	Goethe Universität Frankfurt
<b>Abitur</b>	Immanuel-Kant-Schule Kelkheim