Resumé - Markus Löffler

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Summary

- 35 years of experience in Software Design and Software Development with focus on apps, embedded software, graphical user interfaces
- International experience through 6 years of study in the USA (diploma thesis, Ph.D, and participation in a startup company)
- 10 years of experience in Mobile Software Development
- Only interested in *freelancer projects*, ideally 15h-25h/week

Professional Experience/Projects

Mods and Tech Demos for an Automotive Headunit

- Modifying the HMI in order to display special content for tech demos
- Implementation of advanced 3D graphics and animations running on the headunit
- Integration of a Headunit Emulator into a Virtual Reality Presentation at the CES 2025

BMW Motorrad Connected Ride

- Implementation of Cloud-based sync and other Cloud services
- Development on iOS and Android

Prototype for the Integration of Alexa into an Automotive Headunit

Utilization of the Alexa Auto SDK on a Linux-based headunit

BMW Interaction Ease Demo for CES 2020 in Las Vegas

- Demonstration of future user interface concepts (e.g., gesture recognition and eye tracking)
- Development of an Android app for the user interface and playback of animation and multimedia content
- Modification of the graphic stack of Android to compensate for the windshield distortion of the head-up display

Alexa Voice Control in BMW Vehicles

- Integration of the Alexa voice control for BMW ID5/ID6 headunits
- Development on iOS/RxSwift for the "BMW Connected" app

Framework for BMW Music Remote Apps

- Development of an iOS Frameworks in Objective-C for the integration of 3rd party music apps into the BMW entertainment system
- Collaboration with companies like Spotify, Amazon Music, etc.

Indie Developer for Mobile Apps

 Design and development of the iOS-Apps "Kodi Music Remote" (http://kodimusicremote.com) and "Swipe Calendar" Adesso AG Freelancer 02/2021 - now

Pixida GmbH Freelancer 12/2020 - 05/2022

Adesso AG Freelancer 05/2020 - 02/2021

Adesso AG Freelancer 11/2019 - 04/2020

Jambit AG Freelancer 05/2018 - 06/2019

Pixida GmbH / Adesso AG Freelancer 01/2015 - 01/2020

Indie Developer 03/2013 - today

HMI Development for BMW Headunits

- Embedded development in C++ in the area of HMI/entertainment for BMW ID4/ID5 headunits
- Development of trace analysis tools on Python

Elektrobit / TechConnect GmbH

Freelancer 11/2010 - 05/2014

HMI Development for an Instrument Cluster

Embedded MMI software development for a Daimler AG instrument cluster

Bosch AG via SSW GmbH

Freelancer 06/2009 - 10/2010

Project Management for a Data Logger

- Development coordination and project management of the data logger "blue PiraT" (CAN, MOST, LIN, RS232, Ethernet, Video, Flexray)
- Collaboration with BMW, Daimler, Audi, Porsche and Harman-Becker

Telemotive AG

Permanent Position 01/2005 - 05/2009

Project Management in the Area of Headunits and Vehicle Networks

- Project management in the area of the BMW CCC Headunit
- Spezification of the vehicle network communiciation (CAN, MOST)

Telemotive AG

Permanent Position 03/2002 - 05/2006

Development of a Frameworks for Robot Control

 Design and development of the Robotic Platform, an object-oriented framework for robot control, with a graphical user interface and 3D simulation on QNX

Clemson University

Research Assistent 01/1997 - 08/2001

Technische Organisation von Diashows

- Technical organization of 23 slide show presentations about trips to Africa and Asia
- Development of the EasySlide system for multimedia control in slide shows

Liveshow

1991 - 1997

Education

Ph.D., Electrical Engineering

- Clemson University, Clemson, SC, USA, GPA 3,9
- Thesis title: "New Object-Oriented and PC-Based Approaches to Robot Control Software".

Clemson University

01/1997 - 08/2001

Diploma, Electrical Engineering

- Technische Universität München, Average Grade 1,6
- Thesis title: "Measurement of the Yarn Path and Tension in Yarn Unwinding" (External thesis at Clemson University, USA).

Technische Universität München

11/1990 - 10/1996

Skills

- Software development: Object-oriented design, embedded software, real-time systems, graphical user interfaces, 3D graphics
- Programming languages: Swift, Objective-C, C++, C, Python, Kotlin, Java, HTML
- Operating sytems: iOS, Linux, Android, MacOS, Windows, QNX
- Network/interfaces: MQTT, CAN, MOST, LIN, RS232, TCP/IP
- Tools: XCode, Visual Studio Code, GIT, Android Studio, Jira, SourceTree, Virtual Box, Eclipse, Visual-C++, Subversion, Mercurial, Bugzilla, Joomla, Doxygen, Excel, Word, Final Cut Pro X, Inkscape, Affinity Designer, CANoe
- Languages: German (native), English (excellent), Spanish (basic)