# Chen, Kuang-Yu

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## **SUMMARY OF QUALIFICATIONS**

- Object oriented programming for large scale software systems in C/C++
- SQA (Software quality assurance) plan; it includes software test (system test/unit test design) and TDD
- Android/iOS mobile applications development
- Firmware development
- Object oriented software system analysis and design with UML
- Software engineering implementation (Software requirement specification, software configuration management, software architecture design, SQA, test.)
- Generic & template programming in C++
- Win32 applications development with VS C++, .net and RAD (Delphi/C++ Builder)

# **Educational background**

I Shou University, Computer Science and Information Engineering 1998

## Work experience

2015/12 - 2019/7 NewEgg Co., Ltd., Taipei

SQA manager

#### Responsibilities:

- Android application development and SQA team management. Responsibilities include following:
- Android cloud files management app Newegg Box
- Software test plan development (IEEE 829 std ) and test automation (epresso/appium/webdriver)

#### 2007/08 - 2015/11 Hon Hai Precision Ind. Co., Ltd., Nei-Hu, Taipei

Manager

#### Responsibilities:

- Android application development and team management; it includes IPTV, Home automation platform design (smart power control), 5" wall mount (Telechip TCC8925 Android jellybean 4.2.1 / Amlogic AML 8726) launcher development
- Android application development and team management; it includes IPTV, Home automation platform design (smart power control), 5" wall mount (**Telechip** TCC8925 Android jellybean 4.2.1 / **Amlogic** AML 8726) launcher development
- Music streaming app (Internet radio and Free music player) development on TI AMX3352 platform (Android 2.3.4) and skyviia sv8860 platform (Android 2.3.1).

- ➣ Porting uPnp applications to skyviia sv8860 android based platform
- Alarm app development on TI (Android 2.3.4 )AM335x platform
- Software architecture design for android apps with UML and IEEE std 1016 Detail description document

- Software requirement specification (bases on IEEE std 830 -1998) with use cases and UML for man machine interface applications
- Software detailed design and architecture analysis (bases on IEEE std 1016 -1998 ) with UML ( activity diagram , state transition chart ) and programming design language (PDL)
- Software test plan (bases on IEEE std 829 1998), it includes master test plan, system test plan, acceptance test plan and unit test plan for man machine interface applications.
- Mobile applications development bases on Open Plug (ELIPS)/ Kaleido − KPL (Kaleido Phone Library )
- ☑ Integrating GuoBi IME (input methods engine) into Open Plug (ELIPS)/ Kaleido KPL System

- RTK Device driver programming for audio/LCD display/Keypad

2002/10 – 2007/07 PCS, System Engineering Dept. R&D Div., Wistron NeWeb Corp., Hsin Chu

Staff software engineer

#### Responsibilities:

Project Name: 32-bits microprocessor Hard Disk MP3 Player embedded software solution

- Software project management
  - □ Define software requirements specification (SRS) of embedded hard disk MP3 player software system.
  - Define Man-machine Interface specification for hard disk MP3 Player embedded software system for BTC Corp. Ltd.
  - Design software design description specification of hard disk MP3 Player embedded software system.
- Software test activities development and planning
  - Design system test cases specification for FS2312 hard disk MP3 software system
  - □ Design system test design specification for FS2312 hard disk MP3 software system
  - □ Design system test procedure specification for hard disk MP3 software system
- Develop MP3 GUI framework bases on Motorola® MP3 HDD software solution (Trio™) using ANSI C and WinRiver ™ Vision ICE and BDM (Background Debug Mode).
- ∑ Testing case design for Trio<sup>™</sup> software package using below testing methods.
  - References

- 1. GSM 02.30 version 5.7.1 Release 1996 Man-Machine Interface (MMI) of the Mobile Station (MS)
- Dean Leffingwell & Don Widrig ,"Managing Software Requirement A use Case approach", Pearson
- 3. Arnold Berger, "Embedded Systems Design An Introduction to Processes, Tools, and Techniques", CMP Books
- 4. IEEE Std 1233, 1998 Edition, IEEE Guide for Developing System Requirements Specifications.
- 5. IEEE Std 829-1998 Edition, IEEE Standard for Software Test Documentation
- 6. K.J. Ross & Associates Pty. Ltd, "Practical Guide to Software Testing" Bart Broekman& Edwin Notenboom, Testing Embedded Software", AW
- 7. Robert Cillbertson& Cary Cobb, "Rapid Testing", PTR

Project Name: G11+ (GSM/WAP CSTN, 16-polyphonic tones handset)

#### Responsibilities:

- Supplementary service Man-Machine Interface debugging and implementation in ANSI-C.
- Develop Engineering Mode of Project G11/G11+ for Field Try team.
- GSM servicing Cell Information presentation:
  GPRS servicing Cell Information
  Neighbor Cells Number and BCCH (Broadcast Control Channel) query
  Paging rate
  PLMN (Public Land Mobile Network) Information
  Cipher and Hopping Status
  International Mobile Subscriber Identity (IMSI) and IMEI (International Mobile Equipment Identity)
- Develop Project G11+(GSM/GPRS, WAP Colorful handset) device Test Mode for PE.
  - □ LCD driver test

presentation

- Keypad driver test
- □ Ring Tone Test
- □ Plug-In
- □ IMEI (International Mobile Equipment Identification) and IMSI
- □ DAI (Digital Audio Interface)
- Developing GSM /GPRS Man-machine Interface test plan.
- Formalize GSM/GPRS handset Man-Machine Interface System states to regular-expression and Finite State Automata by Graph-Based Test method.
- Develop Man Machine Interface system test cases
- Setting, Call log , Supplementary service , PIM , Agenda , man-machine interface implementation

#### ⋉ References

- 1. Miro Samek, "Exceptions or a Bug?", C/C++ Users Journal ,Vol. 21, No.8 , August 2003
- 2. Jack Reeves, "Exceptional and Debugging", C++ Report, 1996
- 3. Richard Nies, "Tracing Exceptions with an Exception Stack", C/C++ Users Journal, April 2002
- 4. H Muller, "Ten rules for handling exception handling successfully", C++ Report Jan. '96

- 5. Peter van der Linden, Expert C programming Deep C secrets, Prentice Hall PTR, 1996
- 6. Guidelines for Writing a SOP for Mass Spectrometry.
- 7. David Grusenmeyer,"Developing Effective Standard Operating Procedures"
- 8. Calypso/lota/Clara System Application Note- APN0 Ver 1.2, Texas Instruments
- 9. Current consumption of Calypso/lota based chipset in idle modes APN02 Ver 1
- 10. GSM 02.81 version 7.0.0 Release 1998 Line identification Supplementary Services Stage 1
- 11. GSM 02.82 version 7.0.0 Release 1998 Line identification Supplementary Services Stage 2
- 12. GSM 02.83 version 7.0.0 Release 1998 Line identification Supplementary Services Stage 3
- 13. GSM 02.88 version 6.0.0 Release 1997 Call Barring (CB) Supplementary Services Stage 1
- 14. GSM 02.84 version 6.0.0 Release 1997 MultiParty (MPTY) Supplementary Services Stage1

#### 1998/08 – 2002/09 Wireless Business Unit, Quanta Computer Inc., Lin Kuo

## Senior Software engineer

Project Name: TCC® S500/S550

## Responsibilities:

- Develop PIM (Personal information management ) system
- Supplementary services Man-Machine interface implementation
- Man-machine interface test cases design and execution
- □ Call log function design and MMI implementation

Project Name: Skiff (Product Name: Giya E320)

#### Responsibilities:

- Man-Machine Interface design and remodel and Man-Machine Interface Application phonebook design.
- Supplementary services Man-Machine interface implementation
- Man-machine interface test cases design and execution

**Project Name:** Ferry (Product Name: **SIEMENS**® C45)

#### Responsibilities:

- Develop the Machine Interface of supplementary services and implementation.
- Man-machine interface debugging
- Design Ferry project Man-Machine Interface test cases

Project Name: Aviso/Skiff

## Responsibilities:

- Develop the Machine Interface of supplementary services design.
- Design Ferry project Man-Machine Interface test cases

Project Name: Panasonic® GD51

#### Responsibilities:

igotimes Develop the man-machine Interface of supplementary services design.

- Design and implement Agenda (PIM) system.

## Skills and abilities

- High level programming languages, shells and query languages: C/C++, Java, SQL, HTML, Modeling Language UML
- Low level programming languages: x86/8051
- RAD tools/IDEs: Delphi, C++ Builder, Visual studio, Eclipse
- Operating platforms: DOS/Windows , Unix
- Software testing
- Object oriented software design and analysis in UML
- Software requirement specification design
- Firmware design

# Favorite journals

- C/C++ Users Journal
- Dr. Dobb's Journal
- Software Development Magazine
- C++ report

**References:** Available upon request.