WEI-REN CHEN

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EDUCATION

National Chiao Tung University, Taiwan (R.O.C.) *June 2010*
M.S. in Computer Science & Engineering
Teaching Assistant of Computer Science Computer Center

WORK EXPERIENCE

SGS-TUV Saar February 2022 - Present
Functional Safety Project Manager *New Taipei City, Taiwan*

· ISO 26262 auditor and assessor.
· Provide ISO 26262/ISO 21434/ISO 21448/ASPICE services.
· IEEE SA member.

- IEEE P2851 WG Secretary.

- IEEE FSSC voting member.

Horizon Robotics Inc. August 2018 - February 2022
Senior Software Engineer *Shanghai, China*

· Develop AI Toolchain for our AI accelerator, including front-end parsing and AST construction, middle-end instruction scheduling and combination, back-end code generation, and runtime development.
· Establish organization-wide policy and procedure complying with ISO 26262. After that, as the functional safety manager of our AI Toolchain project.
· Internal trainer of ISO 26262 and ISO 21448.
· IEEE SA member.

- IEEE P2851 WG member and SG co-leader.

- IEEE FSSC voting member.

Huawei Technologies Co. Ltd December 2015 - August 2018
Senior Software Engineer *Zhejiang, China*

· Develop Clang/LLVM compiler, GNU binutils and GNU libgcc for our DSP.
· Develop DSL for our wireless team, for programming L1/L2 of 4G/5G. The DSL is data-flow programming paradigm aims to help programmer focus on the in/out of each operations, and let the compiler do the code generation and optimizations. I involves in the language design, and implementing compiler (Scala) from the front-end to the back-end.

Generalplus Technology Inc. November 2013 - December 2015
Software Engineer *Hsinchu, Taiwan*

· Develop DSL for our 4-bit RISC-like processor. Instead of programming in the assembly, a DSL is implemented to help our customer reducing the time to market. The compiler is not only a standalone tool, but also integrated in our IDE to help our customer catching syntax and semantic errors in the early stage of development.
· Maintain 6502 C compiler and tool chain. The 6502 C compiler is derived from SDCC, integrated with our proprietary tool chain. My responsibilities also include helping our FAE programming the C code, and writing technical report to our customer (in English of course).

Academia Sinica   October 2010 - August 2013
Research Assistant   *Taipei, Taiwan*

· Research in compiler and virtualization techniques (QEMU and LLVM). Focus on binary translation and hardware performance profiling feedback optimization.

PROFESSIONAL LICENSE

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- SGS-TUV Saar Automotive Functional Safety Experts - valid until Jun. 2025.

- SGS-TUV Saar Certified Automotive Cyber Security Professionals - valid until Nov. 2025.

- SGS-TUV Saar SOTIF Professionals - valid until Nov. 2025.

OPEN SOURCE EXPERIENCE

- Cygwin hidapi port maintainer.

- Help LLVM community releasing its first ARM binary!