



Digital Design Cryptographic Architect (f/m/div)

Job description

Are you ready to make a difference to in the car safety and security? Being faster than the attackers and help to keep automobiles secure? Do you want to take up a new challenge within our automotive division? Do you actively look for the best solution while setting up the direction in your field of expertise? We develop and deliver the technology; so become part of shaping the future within automotive industry as a Digital Design Cryptographic Architect! Come on board and join us at the pulse of technology!

As a Digital Design Cryptographic Architect, you will be part of different phases of the development process, interacting closely with other teams, like Design and Application Engineering. You will have the responsibility to define the architecture of the products (with particular focus on cryptographic solutions), in order to fulfill certain requirements.

In your new role you will:

- Develop **hardware and software countermeasures for security controllers and cryptographic units** against the state-of-the-art physical and logical attacks.
- Define the **micro-architectures for cryptographic accelerators** for our upcoming Traveo-III family of Automotive Microcontrollers, with particular attention to interfaces to **CPU Subsystems** (Realtime, Application), **Communication Subsystems** (Ethernet, CAN, FLEXRAY), and **Memory Subsystems** (FLASH, RRAM, External DDR).
- **Collaborate with experienced micro-architects and RTL designers** to assess the feasibility of ideas, refine ideas, and seed new ones.
- Analyze **domain specific workloads** to identify **area, performance and power bottlenecks** and **opportunities for improvement**.
- Work close with a diverse and dispersed team, so you must have strong communication, influence, and negotiation skills.

Profile

You are a result-oriented person with a problem solving mindset. You are quality oriented, self-motivated and remain focused on solutions even in complex situations. You will be setting direction. Therefore, you must be comfortable in an environment of uncertainty and be able to work through ambiguities. We are a data driven group and believe in the power of individuals proving their own ideas so it is great if you have hands-on experience with high-level simulators for performance and power estimation.

You are best equipped for this role if you have:

At a glance

Location: **Dublin (Ireland)**
Job ID: **330324**
Start date: **as soon as possible**
Entry level: **5+ years**
Type: **Full time**
Contract: **Permanent**

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Contact

Daniela Ferreira
Talent Attraction Manager



- A **University Degree** in **Electronic** or **Computer Engineering**;
- Approximately **10+ years of experience** and knowledge of **digital micro-architecture concepts** as well as deep expertise in cryptography fundamentals and algorithms (e.g. TRNG, DES, TDES, AES, Chacha, SM4, Poly1305, GCM, SHA1, SHA2, SHA3, SipHash, SM3) and one or more focused **areas** (e.g. signal processing) or **CPU subsystem areas** (e.g., bus infrastructure, memory subsystem design);
- Experience with **ARM Cortex M/ R class CPUs** and **AHB/AXI** interconnects would be beneficial;
- Proficiency in **SW languages** (e.g. C, C++);
- Proficiency in a **HDL** (e.g. Verilog, VHDL, SystemVerilog);
- Proficiency in **scripting languages** (e.g. Perl, Python);
- Knowledge and experience with common performance **benchmarks and workloads**.

Benefits

- **Dublin:** Coaching, mentoring networking possibilities ; Wide range of training offers & planning of career development; Different career paths: Technical Ladder, Management & Individual Contributor; Flexible working conditions; Medical coverage; Health promotion programs; On-site Kitchen available ; Company Sick Paid Leave Scheme; Company Pension Scheme ; Annual Success Bonus Scheme; Monthly Commuter Ticket fully expensed by Company ; Accessibility, access for wheelchairs

Why Us

Part of your life. Part of tomorrow.

We make life easier, safer and greener – with technology that achieves more, consumes less and is accessible to everyone. Microelectronics from Infineon is the key to a better future. Efficient use of energy, environmentally-friendly mobility and security in a connected world – we solve some of the most critical challenges that our society faces while taking a conscientious approach to the use of natural resources.

** The term gender in the sense of the General Equal Treatment Act (GETA) or other national legislation refers to the biological assignment to a gender group. At Infineon we are proud to embrace (gender) diversity, including female, male and diverse.*

