

Semiconductor Design Engineer

OPPORTUNITY

Ainira Industries is on a journey to innovate across the AI Semiconductors space, and fuel our unparalleled climb to Decacorn-plus valuation. With this rapid scale and dynamic growth, we are hiring Semiconductor Design Engineers to capture this generational moment and unleash the AI Quantum Chips business.

Your expertise in machine learning and chip design will be pivotal in creating intelligent and transformative AI applications for our ground-breaking AI Semiconductors flagship programs that accelerate the transformation of information into intelligence, inspiring the world to learn, communicate, and advance faster than ever. Positions are based in Dubai, UAE and Melbourne, Australia with some travel involved.

JOB DESCRIPTION

The current rate of innovation is making the role of the semiconductor engineer increasingly prominent. New products, platforms, and systems are created, tested, and pushed out to market daily, each needing to be poked and prodded – tested to within an inch of its life. The role requires a solid experience in the silicon/chips industry, implementing appropriate ML algorithms and AI products, and conducting experiments.

Reporting to the Director of AI Engineering, the Semiconductor Design Engineer will be at the forefront of technological innovation, leveraging advanced knowledge of semiconductor design and implementing AI models and systems. The environment you operate in will often be extremely clean to protect your equipment – this means that you may be required to wear anti-contamination clothing as part of this.

RESPONSIBILITIES

- Develop and implement semiconductor design methodologies, processes, and standards
- Design and test semiconductor components and systems using CAD tools and simulation software
- Participate in the development of digital/analog mix-signal verification methodology for advanced chip products, as well as the design and implementation of mix-signal design verification environment
- Conduct feasibility studies and analyse technical requirements to guide design decisions, and prepare and review design documentation, including schematics, layouts, and test plans
- Ensure that designs meet performance, power, and cost targets while adhering to quality and safety standards
- Interact with equipment manufacturers and department heads, and develop patterns and regressions to increase the function coverage for all semiconductor architectures and features
- Build a verification plan from functionality specification and in coordination with design architects
- Provide support to design engineers, debug failures, handle bug tracking, and close coverage
- Develop and maintain test benches and test vectors using digital and analog simulation tools

- Work collaboratively with international colleagues on developing new verification tools and the flows to resolve the verification difficulties
- Troubleshooting and resolving potential software problems and design-related issues to ensure successful product development and release
- Collaborate with cross-functional teams, including process engineers, testing engineers, and project managers, to ensure successful design and product development
- Creating specification documents, writing reports, and maintaining records

SKILLS and ABILITIES

- MSc degree in Electrical/Electronics Engineering, Computer Science, or Machine Learning,; PhD preferred
- 7-10 years' of hands-on experience developing sub-28nm CMOS technology semiconductor architectures
- Strong understanding of semiconductor design methodologies, processes, and standards
- Proficiency in CAD tools and simulation software for designing semiconductor components and systems
- Familiarity with advanced semiconductor manufacturing processes, such as ASML's state-of-the-art equipment used by the TSMC, and their impact on design
- Experience in designing and testing complex semiconductor systems, with portfolio examples of successful chip architecture projects
- Demonstrated high degree of initiative, attention to detail, and willingness to learn and adapt quickly
- Exceptional communication skills, enabling effective collaboration with both technical teams and business stakeholders
- Desired knowledge of programming languages commonly used in AI, such as Python, R, or Java, and experience with ML frameworks like TensorFlow or PyTorch

COMPENSATION

The Company offers a competitive compensation and benefits package.

APPLY

Click "Apply" below or use form in the Contact section – quote the reference number HR-AIS-0009. Only the shortlisted candidates will be contacted. Thank you for your interest.

Recruitment agencies, please note that no agency candidates will be accepted.