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# 2025 Full-Time Opportunity for International Students

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# Full time Opportunity for International Students

| Division | Job | Required Majors | Location |
|---|---|---|---|
| DS | Circuit Design | Electrical/Electronics Engineering | Giheung, Hwaseong, Suwon, Cheonan, Onyang, Pyeongtaek |
| | Process Design | Electrical/Electronics Engineering, Material/Metal Engineering, Chemistry/Chemical Engineering, Mechanical Engineering, Physics | Giheung, Hwaseong, Suwon, Cheonan, Onyang, Pyeongtaek |
| | Process Technology | Electrical/Electronics Engineering, Material/Metal Engineering, Chemistry/Chemical Engineering, Mechanical Engineering, Physics | Giheung, Hwaseong, Suwon, Cheonan, Onyang, Pyeongtaek |
| | Software R&D | Computer Science, Electrical/Electronic Engineering, Mechanical Engineering, Industrial Engineering, Mathematics, Statistics | Giheung, Hwaseong, Suwon, Cheonan, Onyang, Pyeongtaek |

# DS Division

Grow your career at the heart of innovation.

# Job Description

## DS Division(Device Solutions)

- **Job : Circuit Design**
- **Location : Giheung/Hwaseong/Suwon/Pyeongtaek, Gyeonggi
  Cheonan/Onyang, Chungcheong**

R&D on design/evaluation/planning based on semiconductor-related knowledge

## Role

- **Circuit Design**

  - Understand product requirements and design/verify digital and analog circuits and systems
  - Design patterns (layouts) for implementing the designed/verified circuit as a chip
  - Evaluate wafer/package Embedded with the designed circuit
  - Flash storage system HW(SSD) development using DRAM, NAND, and memory controller

- **Design product evaluation and optimization**

  - Establish Functional & Timing Verification Environment using Simulation Tool and verify the designed circuit
  - Circuit verification to maximize coverage for product operation based on SPEC and actual environment
  - Development of verification environment and circuit verification methodology for improvement of design completeness

- **Design circuit verification (Simulation, Logic)**

  - Improvement of completeness through analyzing / optimizing integrated characteristics (reliability, performance, quality, function, etc.)
  - Progress and improvement activities of SW and HW defect analysis in products
  - Development of design automation method (CAD / CAE)

# Job Description

## Requirements

- Electrical/Electronics Engineering or related major
- Knowledge of semiconductor basic operation principle, signal processing, data mining, performance analysis

## Pluses

- Experience in semiconductor chip design
- Experience with semiconductor development related tool
  (SPICE Simulation, Schematic Editor, Layout Drawing, Trace32, Power Supply,
   Logic/Protocol Analyzer, etc.)
- Knowledge of programming language (C++, System Verilog, Python, VBA, etc.)

# Job Description

## DS Division(Device Solutions)

- **Job : Process Design**
- **Location : Giheung/Hwaseong/Suwon/Pyeongtaek, Gyeonggi
  Cheonan/Onyang, Chungcheong**

> R&D on process management/yield improvement/device/measurement technology
> based on semiconductor knowledge

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## Role

- **Process Integration**

  - Development of optimum process condition (Recipe)
  - Analysis of process failure, optimized layout and mask design for each process
  - Process design and implementation to ensure product quality and performance

- **Device Development**

  - Device design satisfying the performance and characteristics
  - Study on improvement of device characteristics and reliability for ensuring mass
    production of products

- **Failure Analysis**

  - Analysis of the causes of defects by evaluating the characteristics of the design and
    process products
  - Analysis of failure cause by electrical, physical and statistical failure analysis

- **Yield Enhancement**

  - Determination of process structure of mass-produced products and presentation of
    production standards
  - Study on product development / production activities such as manufacturing,
    process technology conditions, product characteristics, cost, yield and quality
  - Improve the process by identifying the cause of product failure

# Job Description

## Requirements

- Electrical Engineering, Material Science, Chemistry and Chemical Engineering,
  Mechanical Engineering, Physics or related major
- Knowledge of semiconductor basic operation principle, signal processing, data mining,
  performance analysis

## Pluses

- Experience in semiconductor chip design
- Experience with semiconductor development related tool
  (SPICE Simulation, Schematic Editor, Layout Drawing, Trace32, Power Supply,
   Logic/Protocol Analyzer, etc.)
- Knowledge of programming language (C++, System Verilog, Python, VBA, etc.)

# Job Description

## DS Division(Device Solutions)

- **Job : Process Technology**
- **Location : Giheung/Hwaseong/Suwon/Pyeongtaek, Gyeonggi**
  **Cheonan/Onyang, Chungcheong**

R&D on process management/yield improvement/device/measurement technology based on semiconductor knowledge

## Role

- **Process Development**
  - Improve process by optimizing mass production and simplifying the overall process
  - Standardize process conditions to improve yield and quality, control bottleneck process
  - Develop eight semiconductor process technologies
    (Photo, Etch, Clean, CMP, Diffusion, IMP, Metal, CVD)
  - Quality control by regular process monitoring
  - Resolve persistent defects and improve quality by collaborating with facility technology

- **Manufacturing Science**
  - Improve measurement process productivity, match measurement output
  - Develop product and improve quality by analyzing atomic level device structure and interface reaction
  - Analyze and improve physical and chemical properties of products
  - Increase productivity and maximize efficiency by improving material yield/quality
  - Acquire advanced manufacturing technology (patent, new analysis method, simulation technique, etc.)

# Job Description

## Requirements

- Electrical Engineering, Material Science, Chemistry and Chemical Engineering, Mechanical Engineering, Physics or related major
- Knowledge of semiconductor basic operation principle, signal processing, data mining, performance analysis

## Pluses

- Experience in semiconductor chip design
- Experience with semiconductor development related tool
  (SPICE Simulation, Schematic Editor, Layout Drawing, Trace32, Power Supply, Logic/Protocol Analyzer, etc.)
- Knowledge of programming language (C++, System Verilog, Python, VBA, etc.)

# Job Description

## DS Division(Device Solutions)

- **Job : Software R&D**
- **Location : Giheung/Hwaseong/Suwon/Pyeongtaek, Gyeonggi**
  **Cheonan/Onyang, Chungcheong**

> Research and develop solution products using semiconductor
> based on S/W technology knowledge

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## Role

- **Firmware, Middleware, System S/W, Application S/W Development**

  - Develop software that meets the requirements of products
    (SSD, DRAM Module, CPU, GPU, Multimedia, etc.)
  - Apply and evaluate firmware and S/W product, optimize product performance
  - Develop Protocol, Device Driver, Linux, Windows S/W
  - Develop S/W platform

- **Smart Factory Establishment**

  - Develop BSP, Machine/Deep learning, Voice/Natural Language Processing
  - Generate encryption, embedded system security, communication/network security,
    security evaluation, reverse engineering, etc.
  - Automotive S/W Platform development

- **Automation, AI, IoT, Cloud, Security S/W Development**

  - Develop facility/infrastructure automation system (analysis/control system, monitoring
    system development)
  - Advance production automation system (production control system, system control,
    logistics transportation system development)
  - Develop security firmware for storage devices (SSD/UFS)

# Job Description

## • S/W Engineering

- Improve development methodology and process (DevOps), establish and automate infrastructure/tools, develop S/W analysis and manage quality assurance
- Manage S/W development process regulation
- Data Center Engineering
· High Performance Computing, NAS Storage & File System Sharing
- Data Center Design & Operation

## Requirements

- Competence in programming language (C, C++, C#, Python, Java, etc.) with rigorous problem solving attitude towards algorithms
- Ability to understand requirements and design/implement proper software

## Pluses

- Experience related to software research and development
- Experience in software/hardware platform implemented projects
  (SPICE Simulation, Schematic Editor, Layout Drawing, Trace32, Power Supply, Logic/Protocol Analyzer, etc.)
- Ability to communicate with foreign corporation