

# Driving decarbonization and digitalization. Together.



## Thesis/Internship/Working Student: Performance Modeling of AI Accelerator Hardware (f/m/div)

### Job description

Would you like to be part of our AI research team and work in a highly innovative area? We are looking for a motivated student who wants to develop an analytical performance model to support the selection process of AI accelerator hardware for the next generation Automotive Microcontroller Platforms. This model is intended as the foundation for our application and function-level analysis of AI accelerators and basis for our platform definition. That means, you will get in touch with the upcoming Automotive AI accelerators and its implementation within the semiconductor industry. If you are interested in a long-term collaboration (min. 9 months) as intern, working student or to write your thesis, we are looking forward to your application!

- **Holistic overview:** You evaluate the benefits of neuromorphic principles in an heterogeneous hardware environment
- **Finding the best solution:** You run simulations to benchmark the performance of different model implementations
- **Reliable work:** You integrate the processing chain of an automotive use case in our simulation tool
- **Shape the future:** You document the work and results for further research

### Profile

- **Study field:** You are currently studying Electrical Engineering or Computer Science
- **Skills:** You are familiar with object-oriented programming; ideally with C/C++ and SystemC
- **Experience:** You have experience in embedded Hardware design with HDL; and Python would be an advantage
- **Way of working:** You have good writing skills and an independent working style
- **Availability:** You would like to work with us for at least 9 months, whether as a working student (at least 20 hours per week), intern or for your final thesis
- **Language skills:** You have fluent English skills, both written and spoken

Please attach the following documents to your application:

- CV in English

### At a glance

Location:

Job ID: **HRC0909909**

Start date: **Nov 01, 2024**

Entry level: **0-1 year**

Type: **Part time**

Contract: **Temporary**

Apply to this position online by following the URL and entering the Job ID in our job search. Alternatively, you can also scan the QR code with your smartphone:

Job ID: **HRC0909909**  
[www.infineon.com/jobs](http://www.infineon.com/jobs)

### Contact

**Lina-Marie Minuth**  
Recruiter



- Certificate of enrollment at university
- Excerpt of the study regulations for the thesis or internship (if applicable)
- Latest grades transcript (not older than 6 months)
- High school report

Important information for working students:

- **Working part-time:** The focus is on studies. Therefore, working student is possible during the lecture period with a maximum of 20 hours per week.
- **Proper students (according to the German law) are welcome:** You must be enrolled, and the examination results or modules of your studies must not have been completed yet, so that you can still work in our team for at least 6 months. You must also not be in a semester of leave.
- **You should live close to the site:** It is important for us to work with you on site and to integrate you into the team. You should therefore be able to come to the site regularly.

## Why Us

### Further links:

[Find out](#) what we are looking for in your CV

[Find out](#) how the student application process works with us

[Discover](#) our student website

### #WeAreIn for driving decarbonization and digitalization.

As a global leader in semiconductor solutions in power systems and IoT, Infineon enables game-changing solutions for green and efficient energy, clean and safe mobility, as well as smart and secure IoT. Together, we drive innovation and customer success, while caring for our people and empowering them to reach ambitious goals. Be a part of making life easier, safer and greener.

### Are you in?

The **Development Center Dresden** was launched in 2019 and is growing successfully. Today, more than **120** top-class experts and young talents from **23** nations are working on research and development of new products and solutions for automotive and power electronics, software, chip design and verification, characterization of complex systems as well as development of products and solutions with artificial intelligence. In the long term, the Development Centre will employ around 250 people. State-of-the-art research and characterization labs facilitate R&D activities for automotive applications, electromobility and AI chips of the next but one generation. The Development Center covers the complete development value chain from product and system definition to qualification.

This is the right place for you, if you want to work in a high-tech environment, master challenges of advanced product development, be part of a multicultural team with great spirit and experience a startup-like culture.

[Click here](#) for more information about working at DC Dresden with interesting employee and management insights and an overview with more Jobs at #DCDresden

### – Automotive (ATV) shapes the future of mobility with microelectronics enabling clean, safe, and smart cars –

The **ATV division** is shaping the future of mobility by enabling clean, safe, and smart cars. Its product and solution offering is powering the decarbonization and digitalization of vehicles. By driving the transition to hybrid and purely electric vehicles, ATV is making a valuable contribution to cleaner roads. ATV is also increasingly digitalizing cockpit, infotainment, comfort, and lighting applications as it takes automated driving to the next stage with higher levels of connectivity, security, and



safety.

The ATV portfolio integrates sensors, microcontrollers, high-performance memories for specific applications, power semiconductors based on silicon and silicon carbide, as well as components for human-machine interaction and vehicle connectivity. Infineon is the world leader in automotive semiconductors.

**We are on a journey to create the best Infineon for everyone.**

This means we embrace diversity and inclusion and welcome everyone for who they are. At Infineon, we offer a working environment characterized by trust, openness, respect and tolerance and are committed to give all applicants and employees equal opportunities. We base our recruiting decisions on the applicant 's experience and skills.

We look forward to receiving your resume, even if you do not entirely meet all the requirements of the job posting.

Please let your recruiter know if they need to pay special attention to something in order to enable your participation in the interview process.

[Click here](#) for more information about Diversity & Inclusion at Infineon.

