

- IHP GmbH Innovations for High Performance Microelectronics/ Leibniz-Institut für innovative Mikroelektronik



# Internship or student job (m/f/d) in AI-dedicated Embedded Software Development

Job-ID: 3012/24 | Department: System Architecture | Working Time: 19h/week | Limitation: 3-6 months | Entry Date: March 2024 | Salary (only if student job): as per Guideline of the State of Brandenburg on the Working Conditions of Scientific and Student Assistants

IHP is an institute of the Leibniz Association and conducts research and development of silicon-based systems and ultra high-frequency circuits and technologies including new materials. It develops innovative solutions for application areas such as wireless and broadband communication, security, medical technology, industry 4.0, automotive industry, and aerospace. IHP employs approximately 380 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25  $\mu$ m-SiGe-BiCMOS technologies, located in a 1500 m<sup>2</sup> cleanroom that meets the highest industrial nanotechnology requirements.

## The position:

As a member of the research group Fault Tolerant Computing within the department System Architecture you will contribute to research into the latest embedded technologies for AI applications. Your detailed tasks will include the development and testing of software components for advanced AI-dedicated architectures and System-on-Chip.

An international team of 12 researchers including very experienced senior and junior scientists as well as PhD students is looking forward to welcoming you in their team. Flat hierarchies and mutual support are important to us. We see diversity of perspectives as a great advantage for our team and strive for a balanced gender mix.

### Your Internship project:

Within the proposed internship, it is intended to develop an end-to end software stack for IHP AI-technologies. You will be required to build an exchange solution to port Neural-Network models from mainstream Python framework to our dedicated hardware solution, as well as developing use cases and embedded applications testing the ported models to virtual and FPGA demonstrators. The internship is supported by an experienced supervisor and accompanied within the framework of a supervision agreement. We aim together for a completion within 3-6 months.

### Your qualifications:

You hold a Bachelor's degree in Computer Science or a comparable study area. You are already experienced in C/C++ and Python programming languages. Ideally, but not mandatory to have a background in Neural Networks, Computer



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Architectures and Embedded Software design. Finally, you are also a strong team player and confidently handle the English language.

### **Our Offer:**

Explore a challenging, multinational environment, conduct your own early-stage research and build your career in a renowned institute at the forefront of cutting-edge technologies.

We are committed to supporting the individual career development and personal needs of our staff by offering flexible working hours and the opportunity to work remotely. The balance between work and family life is highly valued. IHP is TOTAL E-QUALITY-certified for equal opportunities for women and men at work and actively pursues the equality of all gender and all groups of people. We promote the professional development of women and strongly encourage them to apply. Disabled applicants, qualified according to the above criteria, will be given preference over other candidates with equivalent relevant qualifications.

If you are looking for accommodation in Frankfurt (Oder) for the duration of your internship, our Relocation Service will be happy to assist you.

### Your application:

Have we sparked your interest? Then we look forward to receiving your application **until February 1<sup>st</sup>, 2024** via our <u>online application form.</u>

For further information regarding the position please contact: <u>career@ihp-microelectronics.com</u>.

