

## JOB TITLE

Application Engineer – Machine Learning and Digital Signal Processing

## SHORT DESCRIPTION

The Swedish brand of microprocessors, Imsys, is promoting its lean processing solutions for Machine Learning and Digital Signal Processing. It is an exciting time at Imsys as we develop innovative products based on our proven processor technology. We are looking forward to welcoming talented application engineers to our team. Our design environment provides a high-level application modeling interface and an effective development flow to highly optimized platform features with Imsys lean solutions. This is a unique opportunity for you to contribute to the design and implementation of game-changing products built on state-of-the-art technologies like ONNX, LLVM, Eclipse, and the Imsys lean processor core. Do not hesitate to check out more details if you are willing to undertake a wide array of challenges in developing applications with the Imsys lean platform.

## POST

As an application engineer at Imsys, you work on high-impact projects with tight schedule. You are experienced in modeling dataflow applications, particularly machine learning and digital signal processing models. You possess communication and problem-solving skills to actively contribute to tasks related to design, development, and maintenance of applications. You design state-of-the-art applications in the Imsys lean design environment. Further, you discuss interface and implementation details of the Imsys platform, upon which you benchmark and profile application performance. Being a responsible member of the Imsys team exercises your capability to plan your tasks and deliver results within estimated boundaries.

Imsys is a Swedish semiconductor SME designing processors and software ecosystem supporting them. The Imsys lean processor solutions provide a flexible, low-cost, and energy-efficient platform thanks to a microprogrammable microarchitecture implemented in the hardware core. The company has a history as supplier of networked embedded platforms with specialized features and participant of international research projects in collaboration with several industrial and academic partners. We do all this with a small group of talents built around a core of software engineers, data scientists, hardware engineers, and experienced managers. The next generation Imsys lean processor and software ecosystem enables establishing the company in the market of machine learning and signal processing solutions.

As an Imsys application engineer, you are in the forefront of providing a great experience to our customers through developing industrially relevant applications and providing direct customer support throughout the application lifecycle. The main line of current development activities target implementing demonstrators for the forthcoming Imsys processor and reference devices. Continuous interaction among different development departments make it possible to improve our products. You can learn about and influence the development of the Imsys lean platform on hardware and software layers as well as our design and development tools. We believe that being open and informed about new ideas and the state-of-the-art in our field are key ingredients of success, thus you may contribute to platform development and research projects beyond your everyday work.

You can join our small but energetic team in the north of Stockholm area. We provide you with flexible working hours and competitive salary. Our office also offers you a stimulating environment with an interdisciplinary group of experts as well as the possibility to work on industrially relevant applications and be part of a special story of an SME challenging the status quo of the semiconductor industry.

You should join the Imsys team as application engineer if

- You are ready to develop bleeding-edge applications on the Imsys lean software platform,
- You have interest in learning about computer architectures that are different from the mainstream,
- You want to have a better understanding of what is beyond the usual bare metal,
- You want to contribute to the development of actual applications or experiment with prototypes,
- You find it inspiring to influence the features of the processor you work with.

Feel free to contact Jan-Erik Lennefalk, COO, at +46 702 51 91 92 or [jan-erik.lennefalk@imsystech.com](mailto:jan-erik.lennefalk@imsystech.com) with general questions about the company and Dávid Juhász, software architect, at +46 735 88 21 59 or [david.juhasz@imsystech.com](mailto:david.juhasz@imsystech.com) with your inquiries about this job and our technology.

If you find our offer interesting, make sure we hear from you today. Your application is expected in email as your CV and a brief cover letter including references sent to [david.juhasz@imsystech.com](mailto:david.juhasz@imsystech.com). We follow up on received applications and reply to you within one week's time. Being a selected candidate, you will be invited to an interview and provided with a decision after a quick evaluation process.

## REQUIREMENTS

Expected education:

- MSc in Software Engineering or Computer Science

Necessary knowledge/experience:

- 5+ years of Dataflow Application Development
- Digital signal processing and/or machine learning models
- Python programming
- Understanding hardware architectures

Nice to have knowledge/experience:

- Experience with ONNX/Tensorflow
- Embedded systems
- Safety-critical and real-time systems
- MATLAB/Simulink
- C/C++ programming
- Compiler technology