Algorithmic Specialist for Computational Imaging (f/m/x)

Oberkochen

Step out of your comfort zone, excel and redefine the limits of what is possible. That's just what our employees are doing every single day – in order to set the pace through our innovations and enable outstanding achievements. After all, behind every successful company are many great fascinating people.

You have ideas to shape the future of imaging and optical metrology?
Research at ZEISS does shape the future - We believe that algorithms and hardware belong together and by co-designing them on equal footing we add value for our customers and push the boundaries of what is possible in imaging and optical metrology. Working on projects in the interface between algorithms, optic design, and system engineering you will develop visions and prototypes for future ZEISS products. Today these include light, electron, and X-ray microscopes as well as OCT devices, industrial CT scanners, and 3D measurement systems. You will bring your algorithmic knowhow and leverage the latest algorithm and technology advancements to generate ideas on how to address tomorrow's challenges and upcoming megatrends. And you will use your expertise in algorithm design and implementation/prototyping skill to convince decision makers to change the development roadmaps for new ZEISS products.

You have:

- a PhD in mathematics or computer science or similar with a strong publication record or multiple years of work experience in at least one of the following fields: inverse problems, computer graphics, multimodal computational imaging, co-design of algorithms and optics, volume processing of large data sets
- verifiable experience in algorithm development for imaging problems with the latest state of the art approaches
- excellent programming skills with C#/C++ as well as a rapid prototyping in Matlab or Python
- experience in algorithm parallelization (multi-core, vectorization, GPU, clusters) and in larger software projects (e.g. open source) is a plus
- preferably experience in one of the following application fields: routine microscopy, optical metrology, medical optical imaging or 3d visualization

In a spacious modern setting full of opportunities for further development, ZEISS employees work in a place where expert knowledge and team spirit reign supreme. All of this is supported by a special ownership structure and the long-term goal of the Carl Zeiss Foundation: to bring science and society into the future together.

Join us today. Inspire people tomorrow.

Diversity is a part of ZEISS. We look forward to receiving your application regardless of gender, nationality, ethnic and social origin, religion, philosophy of life, disability, age, sexual orientation or identity.

Apply now! It takes less than 10 minutes.

Computer Vision Scientists (f/m/x)

Oberkochen, Jena and Munich

Thrive on innovation at a global technology leader. Develop exciting solutions in a diverse, stable work environment that's focused on the future. Join us in a modern work environment with an open and inspiring culture and colleagues!

Want to bring computer vision to the next level?
Computer vision is an important core technology at ZEISS and we are seeking excellent scientists to bring and shape cutting-edge computer vision solutions for our customers. Integrated in a fast growing team of scientists and research engineers, you develop algorithms that process and analyze 2D and 3D data with a cutting-edge blend of computer vision, machine learning, and efficient optimization techniques. You will work on scaling these algorithms to application-relevant problem sizes in close interaction with our business groups to jointly optimize system design and algorithms for maximum precision and performance. Besides, you are scouting for the newest technical developments and bring academic and own ideas to prototypes - always with the goal of improving our current products and extending our portfolio to yet undiscovered domains. You will be an internal consultant and enabler that not only supports our business units during early development phases but also guides them during technology adoption and integration. If you love a vibrant and technology-driven workplace that challenges you every day with yet unsolved problems at the frontier of computer vision, optics, and machine perception, our team is the place to be.

You have

- a PhD or equivalent work experience in domains like computer vision, machine learning, or mathematical image processing
- a publication record in computer vision at venues such as ECCV, ICCV, CVPR
- a deep understanding of computer vision as well as a strong dedication for mathematical modelling and in depth knowledge of the latest technical advances
- a strong programming background in Python and C++
- the ability to communicate results, challenges, and solutions successfully in a multidisciplinary and multicultural environment
- the vision and hands-on mindset to make your ideas come to life in ZEISS products

At ZEISS we encourage creative thinking and innovation. We work in dynamic and interdisciplinary teams and offer individual development perspectives as well as flexibility in organizing your work. We care about our employees and take particular responsibility for improving society and preserving our environment. These core values have shaped our corporate culture at ZEISS for over 170 years.

Join us and shape the future!

The application process takes less than 10 minutes, we look forward to receiving your application.

Simulation and Machine Learning Research Scientist (f/m/x)

Oberkochen or Jena

Thrive on innovation at a global technology leader. Develop exciting solutions in a diverse, stable work environment that’s focused on the future. Join us in a modern work environment with an open and inspiring culture and colleagues!

You want to pioneer?
In current machine learning applications the physical basis of optical imaging is hardly taken into account and one is often limited by the amount of available training data. In current optical development processes machine learning based methods play only a minor role. Your role is to change that. Integrated in a team you will advance ideas from academic stages to industrial product development. This comprises conceptional work and taking the initiative as well as implementing virtual prototypes and evaluating their performance. During your work you will build an excellent network with us in both academia and industry that will help us to leverage the latest technology advancements in order to address tomorrow's challenges.

You have

- a theoretical background with a PhD in Mathematics, Physics, Computer Science or similar
- a deep understanding of physical optics and machine learning as well as the ability to quickly grasp and discuss ideas in these areas
- practical state-of-the-art knowledge on neural networks, synthetic data generation, and machine learning based simulation techniques
- excellent programming skills in Python, Matlab, or C++ and you are familiar with toolkits such as OpenGL and Tensorflow
- preferably parallelization skills (CUDA, OpenCL, OpenMP)
- an innovative and decidedly hands-on mindset: you love to work on hard problems

At ZEISS we encourage creative thinking and innovation. We work in dynamic and interdisciplinary teams and offer individual development perspectives as well as flexibility in organizing your work. We care about our employees and take particular responsibility for improving society and preserving our environment. These core values have shaped our corporate culture at ZEISS for over 170 years.

Help us shape the future!

The application process takes less than 10 minutes, we look forward to receiving your application.

Experienced Machine Learning Research Scientists (f/m/x)

Jena, Oberkochen, Munich

Thrive on innovation at a global technology leader. Develop exciting solutions in a diverse, stable work environment that’s focused on the future. Join us in a modern work environment with an open and inspiring culture and colleagues!

Want to drive the next generation of intelligent products?
We are seeking passionate and talented scientists who want to drive the development of next generation products and cutting-edge machine learning algorithms at ZEISS. Integrated in a fast growing team of scientists and research engineers, you will develop core algorithms that extract information from the diverse data sources present across our complete product portfolio and take project ideas from academic and idea stages to prototypes. We have just started to scrape the surface of what can be done with the data our products deliver. You will contribute to realizing the prospects of machine learning, modern computer vision and scene understanding technologies for our customers. You will also support technology adoption and integration into our flagship products. This comprises conceptualizing, initiating, prototyping as well as scaling and instrumenting methods and evaluating their performance. During your work you build an excellent network with us in both academia and industry that will help us to leverage the latest technology advancements to address tomorrow's challenges.

You have

- a university degree and proven expertise in state-of-the-art machine learning techniques like multi-modal deep learning, autoML, or reinforcement learning - a PhD would be a plus
- a deep understanding of statistics and machine learning as well as best practices in model development and deployment
- a strong programming background in Python or C++ and familiarity with software development best practices and toolkits such as TensorFlow or pytorch
- a very good overview of latest research and industry trends as well as the ability to understand customer needs and to solve real-world problems
- strong communication and presentation skills
- the vision and hands-on mindset to make your ideas come to life in ZEISS products

At ZEISS we encourage creative thinking and innovation. We work in dynamic and interdisciplinary teams and offer individual development perspectives as well as flexibility in organizing your work. We care about our employees and take particular responsibility for improving society and preserving our environment. These core values have shaped our corporate culture at ZEISS for over 170 years.

Join us and shape the future!

The application process takes less than 10 minutes, we look forward to receiving your application.