

## Job description: Machine Learning Research Intern

### Our company

**Neural Concept** creates Deep Learning based software for enhanced engineering. Our products help companies speed up their R&D cycles, augment their product performance and solve their next engineering challenge.

Deep Learning and AI have already revolutionized how images, sound and natural language are processed. Therefore, some problems that used to be considered intractable are now easily solvable on a large scale. Yet, Computer Assisted Design (CAD) and geometry processing are still using traditional methods. Our mission is to bring this revolution into the world of CAD using our unique Neural Network technology that can process 3D CAD models.

We are working for global leaders in industries ranging from Automotive and Aerospace to Electronics as well as with cutting edge sport teams from Sailing to Car-Racing, who trust our technology to ensure they stay ahead of the curve in their fields.

### The role

We are looking for a Machine Learning Research Intern to join our Research and Development team of hardworking research scientists that are passionate about developing and applying cutting edge methods to solve real world problems. As an integral part of the team, you will explore, benchmark and improve some of the most recent and promising methods that have been developed in the academic community in the domains of (geometrical) deep learning, physics-informed neural networks and online optimization. You will also contribute to the development and implementation of novel ideas and methods that make the Neural Concept technology truly unique.

### What you will do

- Conduct cutting-edge research in machine learning and optimization, including, but not limited to, geometrical deep learning, physics-informed neural networks and online bayesian optimization.
- Extract the most promising methods from the literature and use them to feed your research, and bring your own original ideas to contribute to the superiority of our technology over other commercially available approaches.
- Evaluate your research on our unique database of numerical simulations for a large variety of engineering and design problems spanning multiple physics and industries.
- Work closely with Application Engineers, who will help guide your research based on customers' needs and feedback.
- Collaborate with our engineering team in the implementation of your research in our software.
- Stay up-to-date with the most recent advances in academic research on your topic, and collaborate with world-class machine learning researchers and experts in our network.

### Who you are

- You have a deep understanding of machine learning, and enjoy applying theory to solve real-world problems.
- You have some practical research experience with state-of-the-art deep learning methods. Scientific culture or experience with optimization, physics and/or numerical simulations would be a plus.
- You are fluent with Python and scientific computing libraries (Numpy, ...). Experience with Tensorflow is a strong plus.
- You have or are in the process of completing a PhD or MSc degree in engineering (Computer Science, Mathematics, Physics or other relevant field).
- You enjoy finding solutions to new problems, whatever their nature.

## You get

- Flexible working hours
- State-of-the-art equipment and access to unlimited computational resources
- A stimulating environment with top-level researchers and engineers
- A unique database of numerical simulations on which to develop your research
- A comfortable office with open beverages and healthy food

## Our culture

The company was founded in 2018 and we are already a team of 17 people, dedicated to accomplishing our mission. We were born in a top notch AI lab at EPFL and the values of research are in our DNA. We are honest, pragmatic and passionate about innovation.

We know that the greatest achievements cannot be the product of a single individual and we encourage our employees to strive for the success of the entire team.

We work hard but try to enjoy our time at work and cultivate a great atmosphere. We do our best to respect everybody's private life and are very conscious about work / life balance.

## To Apply

Send an email to: [contact@neuralconcept.com](mailto:contact@neuralconcept.com)