

# Researcher in Neural Networks for lightweight architectures, autonomous driving



**SMART ME UP**  
a Magneti Marelli company

## Company

Smart Me Up is a start-up company designing the new generation of visual perception technologies for autonomous driving systems. The team (8PhDs & 10 AI engineers) focus on scientific research taking a disruptive approach to tackle automotive industry challenges. Recently acquired by a major automotive supplier, we are beginning a period of rapid growth. So, we are glad to provide opportunities for any brilliant and friendly people, lovers of science, and motivated to reduce road fatalities for 1.3 million people per year down to 0 with mathematics.

## Position

Smart Me Up is actively hiring deep learning engineers and scientists with a focus on optimization of neural network architecture on embedded devices, specifically in the autonomous driving domain.

The successful candidates would form part of teams researching a variety of topics in this area, including:

- Network pruning, sparsification
- Knowledge distillation
- Fixed point and integer quantization
- Novel architecture design leveraging specific hardware optimizations

Furthermore, they would contribute to ongoing efforts into neural network research efforts, including:

- Data augmentation for optimised training
- Inference on multi-sensor inputs (deep sensor fusion)
- Inference on time-correlated inputs (e.g. RNNs)

Network optimization is a critical component of inference from deep learning models on embedded platforms where computational resources and power budgets are limited. The successful candidates would form part of a dynamic research group pushing the state of the art in this respect, with tangible applications through our position in a committed automotive supplier.

## Profile

The successful candidates would operate within the Smart Me Up offices in Grenoble, France attached to the Perception research team. They should have familiarity with the Python programming language and ideally with deep learning libraries such as Tensorflow or Caffe/PyTorch. Naturally, an aptitude for mathematical approaches in computer science is necessary, particularly with concepts in deep learning and linear algebra.

## Contact

Candidates should send their CV to [jobs@smartmeup.io](mailto:jobs@smartmeup.io), and are free to contact the same address for any questions on the offer or Smart Me Up itself.