AUMOVIO

Master Thesis - Optimizing Sparse 3D Occupancy Prediction for Embedded Devices - REF5666W

Vos activités

Hey, you are looking for an exciting thesis and would like to gain valuable insights into the field of 3D Semantic Occupancy Prediction for Embedded Devices? Then we have just the thing for you!

We are looking for you **starting in February** for a period of **6 months** to support us in our AI laboratory in Berlin. We will need you mostly **on site in Berlin**. But we also understand that there are days when you'd rather work from home. Therefore, together we find a solution that suits us all - **remote working** hours are therefore possible in consultation with your supervisor.

The following tasks are to be processed in this Master's thesis:

- You will actively work on sparsifying, pruning and quantizing CNN and transformer-based architectures for autonomous driving
- Design, implement, and evaluate models and training algorithms for runtime optimized 3D semantic occupancy predictions
- Summarize research findings in a paper/ master thesis and/or patent submission

While not mandatory, this position is particularly well-suited for students who are considering a future in research or pursuing a PhD.

Votre profil

Are you wondering whether you are suitable for the thesis in the field of lightweight 3D Occupancy Prediction? Here are key qualifications we are looking for:

- You study in the field of Artificial Intelligence, Machine Learning, Computer Vision, Computer Science, Robotics, Mathematics or comparable courses of study, so that you have basic aspects of our area of responsibility
- Strong programming skills in Python are absolutely necessary in the context of this position
- You should have a strong interest in working on runtime optimization
- It would be great if you have experience in 3D perception, previous exposure to multihead attention, experience with deep learning, training and optimizing large architectures as well as already worked with Docker, PyTorch, OOP and Git
- Demonstrated research/software engineering experience through previous internships, work experience, coding competitions and/or research projects and papers are a plus
- Fluent English language skills in word and writing are absolutely necessary for us

In addition to these technical requirements, we are also looking for

Référence
REF5666W

Domaine fonctionnel
Research and Development

Site
Berlin

Nom du contact
Nadia-Victoriana Ciorba

Unité légale
AUMOVIO Germany GmbH

certain properties and skills:

- You are independent, goal-oriented and structured and know how to work effectively without losing track - always pay attention to high-quality results
- Analytical thinking and problem-solving skills are also beneficial and can help you solve the tasks effectively
- Creativity and flexibility are a matter of course for you and help you to find unconventional solutions
- A very good communication and teamwork skills are particularly important for us - after all, we always have to work together on solutions

Before you submit your application, there are a few things you should think about: We need your current enrollment certificate and your current grade level as well as an excerpt from the study regulations regarding the completion of a thesis in order to be able to process your application.

If you are not from the EU area, please also send us your valid residence permit and your work permit including the additional sheet.

Applications from severely handicapped people are welcome.

Notre offre

- You will receive qualified support from our experienced specialists and PhDs to improve your professional knowledge and practical skills
- Your commitment to us is fairly remunerated: We know that your work is valuable and want to ensure that you are adequately remunerated
- We offer you flexible working hours with hybrid working models, where you have the opportunity to occasionally work from home, because we know how important the interaction of private and professional life is.
- Our location is centrally located in Berlin and we look forward to welcoming you to our Co-Working Space AI Campus
- We provide a powerful GPU infrastructure
- Participate in journal clubs and networking events and share technical topics with your colleagues on campus

If you find yourself in our position and feel like working with us on exciting projects, then apply now and become part of our team!

[Diversity, Inclusion & Belonging](#) **are important to us and make our company strong and successful. We offer equal opportunities to everyone - regardless of age, gender, nationality, cultural background, disability, religion, ideology or sexual orientation.**

Ready to take your career to the next level? The future of mobility isn't just anyone's job.   Make it yours!   **Join AUMOVIO. Own What's Next.**

A propos de nous

Since its spin-off in September 2025 AUMOVIO continues the business of the former Continental group sector Automotive as an independent company. The technology and electronics company offers a wide-ranging portfolio that makes mobility safe, exciting, connected, and autonomous. This includes sensor solutions, displays, braking and comfort systems as well as comprehensive expertise in software, architecture platforms, and assistance systems for software-defined vehicles. In the fiscal year 2024 the business areas, which now belong to AUMOVIO, generated sales of 19.6 billion Euro. The company is headquartered in Frankfurt, Germany and has about 87.000 employees in more than 100 locations worldwide.