Fraunhofer IOSB

Interaktive Echtzeitsysteme

Bachelor/Master Thesis:
Operator Overloading for Gaussian Mixtures

Topic
When $x, y \in \mathbb{C}$ then $z = x \cdot y$ will also be in $\mathbb{C}$ which makes the operator overloading quite easy and straightforward for complex numbers. Unfortunately that is not the case when dealing with the probability distribution functions that are represented as Gaussian Mixture Models.

Path
Our mail goal is to develop a minimal library that allows the end user to work with probability distribution functions represented as Gaussian Mixture Models algebraically with the help of operator overloading acting as an abstraction layer.

Prerequisite
There are no hard constraints but the more programming, software engineering, and DevOps you know the more excitement you can get from the topic.

What I offer

- A teammate/supervisor who is actually present.
- A BSc/MSc thesis project that will be used in production level software for an enterprise level project.
- I can probably provide you with an office.
- Nice private IT infrastructure to implement whatever wild ideas you have in mind.

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