



# Student project: Rust-reimplementation of our middleware IPAACA

The Social Cognitive Systems group uses a middleware for inter-process and inter-agent communication that is based on principles of incremental updating: IPAACA, the incremental processing architecture for artificial conversational agents and robots. IPAACA exists for C++, Python and Java and is currently communicating using the MQTT protocol. For six years in a row, Rust has been voted the most loved programming language by the Stackoverflow developer community since 2015. Its verbose and helpful compiler, safety guarantees and fearless concurrency are some of the features that make this modern systems language so appealing. **We are looking for a student who likes the challenge of reimplementing IPAACA, while learning Rust in the process.**

## Tasks

- Get to know the IPAACA middleware
- Learn to code in Rust
- Help to develop an IPAACA package in pure Rust

## Requirements

- Experience working with Git
- Experience with the Rust programming language (Optional)
- Experience working with the MQTT protocol (Optional)

## Interested?

Please contact me: [skahl@uni-bielefeld.de](mailto:skahl@uni-bielefeld.de).