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Mochi: A Novel Code Interpreter to Analyze and Convert High-Level Pseudocode into C++

Programming is an essential skill in today's digitized world. As many jobs are being integrated with A.I. tools, many workers need to reconfigure and aim for software level jobs, which are very high in demand. However, like learning any new language, programming could be a difficult skill to pick up depending on previous experience and knowledge. Even languages like Python can become confusing when trying to code more complex algorithms. Ranging from students to adults, there needs to be a transition that is more low-level than simple block coding, such as Scratch, and more high-level than languages like Python. Mochi is a tool that creates this bridge between simple languages and more complex ones. Rather than being a programming language, however, Mochi is an interpreter that converts high-level pseudocode written by the programmer into a C++ backend that gets compiled by the typical gcc compiler. The defining design feature of Mochi is that the programmer only has to worry about the logic, not the syntax. Essentially, they have to write a set of instructions in plain English however they see fit. Mochi will lexically analyze the instructions and interpret it into C++ and then execute the code. Specifically, with job insecurity in industries like construction, gig-economy, and the service sector, there needs to be a way we can educate people in higher level skills that can be taken on at companies that have a high demand for people who understand software engineering. Mochi is a novel tool that can help as a tool to grasp the logic behind programming and ease the transition into understanding initially cryptic looking code.