Contribution ID: **17**   Type: **Talk (15min + 5min)**

Emerging Heterogeneous Computing Architectures Every Software Engineer Should Know (Compilers and DSLs)

Wednesday, March 6, 2024 11:10 AM (20 minutes)

Software engineers communicate with hardware through a language known as an instruction set architecture (ISA). However, the conclusion of Dennard scaling and Moore's Law implies that this traditional ISA is being replaced by complex heterogeneous ISAs. In light of this, the expertise required to develop new compilers and create domain-specific languages will be crucial for future software engineers. Therefore, this talk will focus on addressing the challenges posed by emerging computing architectures and research related to abstracting the complex ISA. As a use-case, the talk will present an open-source tool that recently received the Best Paper Award at one of the leading computer architecture conferences.

Slot length

other(help with comment)

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