Title of the Article: RISC-V Summit 2022: All Your CPUs Belong to Us

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Summary-

At RISC-V Summit 2022 organized by RISC-V International, RISC-V president Calista Redmond said that RISC-V will become the best ISA in the future with the best software running on RISC-V. RISC-V is only 10 years old, yet competes with the best ISAs in the world such as ARM and x86. Its success depends on the collective effort of many companies, universities, and contributors since RICS-V is an open-source ISA developed by the University of California, Berkeley with the aim of reducing instruction sets. Even India and European Union are also developing this architecture currently. Anyone can design their own CPU using this ISA. This has lead to the development of RISC-V. RISC-V is now popular across markets like automotive, embedded systems, and data centers. Qualcomm, Google's Android port, Ventana's data center chipset, and MIPS in Mobileye's autonomous driving SoC are some main examples of using RISC-V. Despite acknowledged challenges, a research by TIRIAS anticipates a turning point in RISC-V's mainstream adoption due to the interest of industry and governments.

Relatability to studies-

We learnt about RISC-V ISA during the first few lectures. We observed how Python and C++ programs are compiled with RISC-V ISA using compiler explorer. This article shows the potential of RISC-V. We also can design our own CPU with RISC-V. RISC-V in automotive, data centers, and space computers, proves it is used in the current industry. It ensures the direct linkage between industry and what we learn in university.

Take Home Message-

The RISC-V Summit 2022 highlights that RISC-V is becoming a powerful competitor in the processor market. RISC-V’s open design and teamwork approach have managed to attract big investments. This has resulted in many different types of CPUs being used in different fields. With many companies choosing RISC-V, it will improve rapidly in the next few years.