기조 연설



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Advancing Neuromorphic Computing from the Lab to Mainstream Applications

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강연내용 요약

Deep artificial neural networks have provided breakthroughs in AI in the form of near-human levels of data perception in many problem domains. Neuromorphic computing aims to take this a step further-chips directly inspired by the form and function of biological neural circuits so they can process new knowledge, adapt, behave, and learn in real-time at extremely low power levels. After several decades of research, this technology is now reaching maturity. Today, leading neuromorphic research chips such as Intel's Loihi have a growing body of results showing quantitative gains compared to conventional architectures. This talk will share an overview of Loihi and results to date suggesting a roadmap of disruption spanning edge to data center computing applications.

주요 경력

Mike Davies is Director of Intel's Neuromorphic Computing Lab. His group researches brain-inspired architectures, algorithms, software, and systems. He has fabricated several neuromorphic chip prototypes to date including Loihi. Mike joined Intel through the acquisition of Fulcrum Microsystems. As a founding employee and director of Fulcrum's silicon engineering, Mike pioneered high-performance asynchronous design methodologies as applied to several generations of industry-leading Ethernet switch products.